REPORT RESUMES

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REPORT OF THE COMMITTEE APPOINTED BY THE MINISTER FOR EDUCATION AND SCIENCE TO INVESTIGATE THE PROPOSAL TO ESTABLISH A COLLEGE OF ADVANCED EDUCATION AT BATHURST. VOLUMES I AND II.

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DESCRIPTORS- *JUNIOR COLLEGES, *HIGHER EDUCATION, *TECHNICAL EDUCATION, *VOCATIONAL EDUCATION, *FOREIGN COUNTRIES, PROFESSIONAL EDUCATION, COLLEGE CURRICULUM, COLLEGE ADMINISTRATION, COLLEGE ADMISSION, NATIONAL SURVEYS, BATHURST, AUSTRALIA,

VOLUME I OF THIS STUDY IN SUPPORT OF THE ESTABLISHMENT OF A COLLEGE OF ADVANCED EDUCATION IN BATHURST, AUSTRALIA, CONTAINS THE TEXT OF THE RESEARCH, ARGUMENTS, AND PROPOSALS. THE APPENDIXES IN VOLUME II INCLUDE THE AMPLIFYING CHARTS, TABLES, QUESTIONNAIRES, SURVEY RESULTS, ETC. THIS PROPOSED COLLEGE DIFFERS IN CONCEPT FROM THE USUAL AMERICAN JUNIOR COLLEGE, IN THAT IT CONFINES ITSELF TO OFFERING ONLY PROFESSIONAL-LEVEL COURSES IN THEIR OWN RIGHT. (THE AMERICAN TYPE OF COMMUNITY COLLEGE, WITH ITS WIDE RANGE OF PROGRAMS, IS PRESENTLY BEING CONSIDERED AS A WAY OF MEETING THE EDUCATIONAL REQUIREMENTS OF AUSTRALIA'S COUNTRY AREAS.) THE COLLEGE WILL BE PRIMARILY A 2-YEAR INSTITUTION AWARDING DIPLOMAS IN CERTAIN VOCATIONAL FIELDS (AGRICULTURE, LAW, BUSINESS, ENGINEERING, LIBRARIANSHIP, COMMUNICATIONS, AND PARAMEDICAL SERVICES), BUT WILL ALSO OFFER A GENERAL EDUCATION WITHOUT SPECIFIC VOCATIONAL GOAL. THE COLLEGE'S PURPOSES AND ITS PROPOSED LOCATION, FINANCING, AND ADMINISTRATION ARE DESCRIBED. SIMILARITIES AND DIFFERENCES BETWEEN THE AUSTRALIAN AND AMERICAN PHILOSOPHIES OF POST-HIGH SCHOOL EDUCATION ARE NOTED THROUGHOUT THE REPORT. (HH)

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SYDNEY — JULY 1967

JC 680 144

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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SYDNEY - JULY, 1967

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The appendices to this report are published separately in Volume II.

1. FINDINGS AND RECOMMENDATIONS

1. That there is evidence of a demand for advanced education of certain types in the Mitchell, Lachlan and Macquarie regions of New South Wales sufficient to justify the establishment of a College of Advanced Education at Bathurst.

2. That certain types of advanced education can only be provided on a statewide basis and a college at Bathurst, by providing this education, could well serve some of the needs in other parts of the State.

3. That immediate steps be taken to set aside adequate Crown land adjacent to Bathurst Teachers College as the site for the College and that an inter-departmental committee be appointed to plan the development of the area as a whole.

4. That provision be made for students to reside on the college campus.

5. That the offer made by the Bathurst City Council of $200,000 towards the provision of student accommodation be accepted by the Government.

6. That, in addition to 4 above, an attempt be made to organize a system by which students might commute daily from adjoining towns.

7. That the College be concerned with courses at diploma level, the minimum requirements for which should be two years' full-time study or its equivalent in part-time study.

8. That provision be made for post-diploma courses and examinations.

9. That, in general, courses of the College should be based on a level of entry corresponding to completion of the full secondary (Higher School Certificate) course.

10. That the control of the College be vested in a Council of fifteen members constituted as under :

    (a) Seven members appointed by the Minister and resident in the Mitchell, Lachlan and Macquarie regions; at least two from each region.

    (b) Two members appointed by the Minister who shall be New South Wales public servants.

    (c) One member elected by the teaching staff of the college.

    (d) Two members appointed by the Minister who shall be chosen because of their prominence in some field of education.

    (e) Two members appointed by the Minister on the recommendation of the other members of the Council.

    (f) The Principal of the College (ex officio).

11. That as soon as it is decided to establish the College, an interim council of eleven members be appointed by the Minister as under :

    (a) Three members who are citizens of the Mitchell, Lachlan and Macquarie regions.

    (b) Three members who are New South Wales public servants.

    (c) Two members appointed because of their special experience or ability.

    (d) Two members appointed from the staffs of other academic institutions.

    (e) The Principal of the College on his appointment.

12. That the establishment of the College at Bathurst be a forerunner of several others strategically placed in country districts in New South Wales.

13. Although not specifically asked to report on any other matter than the need for a College in the area, the type of College and its location, information conveyed to us in the course of our investigations inclines us very strongly to the view -

    That there is an urgent need in the Central West of New South Wales for an institution dealing with farmer education at the certificate level.

2. APPOINTMENT OF COMMITTEE

Events leading to appointment of Committee

2.1 In August, 1964, the Committee on the Future of Tertiary Education in Australia (known as the Martin Committee) (1) reported to the Australian Universities Commission.

2.2 One important proposal was that tertiary educational institutions different from those already in existence should be developed. These institutions have come to be known as Colleges of Advanced Education. It was suggested by the Martin Committee that an appropriate place for one of these colleges would be Bathurst.

2.3 Following on the acceptance of a large measure of the Report by the Commonwealth Government, the Commonwealth Advisory Committee on Advanced Education (under the chairmanship of Dr. I. W. Wark) was established to :

> "furnish information and advice to the Minister on matters in connection with the grant by the Commonwealth of financial assistance -
>
> (a) to Commonwealth institutions, other than universities, teaching at the advanced education level, and
>
> (b) to the States in relation to institutions other than universities, teaching at the advanced education level, whether or not conducted by them". (2)

2.4 The Report of the Wark Committee suggested the conditions under which financial assistance should be granted by the Commonwealth.

2.5 The Martin Committee had made a further recommendation that there should be established in each State an Institute of Colleges (3) which, amongst other things, would supervise and coordinate tertiary non-university educational institutions. This proposal was not accepted by the Minister for Education and Science in New South Wales.

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(1) Committee appointed by the Prime Minister in August, 1961, to consider the pattern of tertiary education in relation to the needs and resources of Australia and to make recommendations to the Australian Universities Commission on the future development of tertiary education. The Committee is generally referred to as the Martin Committee after its Chairman, Sir Leslie Martin, and its report "Tertiary Education in Australia" (Commonwealth of Australia, Canberra; 1964-1965) as the Martin Report.

(2) Colleges of Advanced Education 1967-69; First Report of the Commonwealth Advisory Committee on Advanced Education (Commonwealth of Australia, 1966), p. 57.

(3) Martin Report, Vol. 1, p. 183.

2.6 Following the announcement of conditions under which Commonwealth subsidies would be paid, the Premier appointed a Committee to advise on steps to be taken to develop those areas of advanced education outside the universities. This Committee, in making its recommendations, suggested that there should be a further investigation of the proposal in relation to Bathurst.

Terms of Reference

2.7 Acting on this advice the Minister for Education and Science appointed our Committee and asked that we investigate the proposed establishment of a College of Advanced Education at Bathurst in terms of the following :

(a) the probable demand for advanced education of various types in the Mitchell, Lachlan and Macquarie regions and the needs in terms of employment in the area;

(b) the need for advanced education in other parts of the State and the possibility of a Bathurst College serving some of these needs, by the use of residential accommodation and/or external studies;

(c) the nature, level and extent of courses to be offered; and

(d) the type of college and its location.

2.8 We were asked to work in liaison with the Central N.S.W. College of Advanced Education Committee (1) and to direct our attention first to the organization and completion of the necessary investigations.

Members of the Committee

2.9 The members of the Committee appointed by the Minister for Education and Science are :

H.F. Heath, B.A., B.Ec., (Chairman)
Member,
N.S.W. Public Service Board.

G.D. Gawthrope, B.Sc., B.Ed.,
Superintendent (Educational),
Department of Technical Education.

V.F. Gordon, LL.B.,
Chairman,
Central N.S.W. College of Advanced Education Committee.

---

(1) This Committee was appointed at a Public Meeting called by the Mayor of Bathurst on 23rd November, 1965. The primary purpose of the Committee was to seek the implementation by the New South Wales Government of the recommendation of the Martin Committee that a College of Advanced Education be established at Bathurst. Membership of the Committee is shown in appendix A.

J. C. Matthews, M. P. S., Ph. C.,
Mayor of Bathurst.

L. N. Short, M. Sc., Dip. Ed., D. Phil.,
Director,
Educational Research Unit,
University of New South Wales.

I. F. Vacchini, B. A., (Executive Member)
Inspector (Technical Education),
N. S. W. Public Service Board.

D. J. A. Verco, M. A., Dip. Ed.,
Deputy Director-General,
Department of Education.

2.10 The following officers of the Public Service were appointed to assist the Committee in its inquiries :

D. A. Cross, M. Sc., Dip. P. E., Ed. D., (Research Assistant)
Teachers College Lecturer,
Department of Education.

C. S. Terry, B. Com., M. Ec., (Research Assistant)
Research Officer,
The Treasury.

R. Larkin, (Secretary)
Shorthandwriter/Typist,
N. S. W. Public Service Board.

Activities of the Committee

2.11 Our first meeting was held on 27th September, 1966, and eleven meetings have been held in Sydney, one in Bathurst and one in Parkes.

2.12 Shortly after this first meeting it became evident that our appointment had created a great deal of interest particularly in the western area of the State. This was instanced by requests from Councils and other interested organizations to make representations. So that all people who desired to do so might have an opportunity to state their views, we decided to make visits to country centres and sought the assistance of local Councils and the press to publicise our visit to the area and arrange the programme of speakers. We received the utmost co-operation from these Councils and their efficient handling of the proceedings made our task that much easier. The centres visited by us were : Bathurst, Dubbo (twice), Forbes, Lithgow, Orange and Parkes.

2.13 In all we received seventy-two submissions from individuals and organizations and these are listed in appendix B.

2.14 We would like to record here our thanks to the many people who prepared submissions and who met with us for discussions. These submissions and discussions have been very helpful to us in our investigations.

2.15 Mr. G. D. Gawthrope, Superintendent (Educational), Department of Technical Education, was a member of our Committee during the important periods when information was being gathered and the draft report and recommendations were being considered. When present at our meetings he concurred generally in our findings but owing to his absence overseas he did not have an opportunity of seeing the report in its final form. For this reason it cannot be assumed that he supported all our conclusions and recommendations. Except for this the report which now follows is the unanimous opinion of all members of the Committee.

2.16 Finally, we would like to express appreciation of the assistance given by Mr. D. L. Phillips, Acting Principal, West Sydney Technical College, who acted as an observer during the period of Mr. Gawthrope's absence.

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3. THE NATURE OF A COLLEGE OF ADVANCED EDUCATION

Martin Committee Report

3.1 In its Report, the Martin Committee stated that tertiary education in Australia, when compared with that established in most English speaking countries, was simple and somewhat inflexible. It depended on a framework of institutions of which there were three main types, namely, universities, teachers colleges and those technical colleges which award diplomas. A major recommendation was that there was a need for more development and diversity. It further stressed the need to build up the resources and raise the quality of the institutions offering tertiary education outside universities.

3.2 It was stated that, while it was generally accepted that higher education was the right of all people capable of benefiting from it, little had been done to provide for the variety of courses either necessary or desirable. Several significant sentences in the Report are quoted :

> " In particular there is a danger of higher education becoming identified in the minds of the community with university education, and of a university degree becoming the single symbol of intellectual aptitude. Ability is a complex human quality; and emphasis on university studies to the exclusion of others in higher education is wasteful of much human talent.
>
> A pattern of higher education, to be acceptable, should fit young people for a full adult life in contemporary society, limited only by their innate abilities. The Committee believes that an acceptable pattern can be developed in terms of existing institutions, if fundamental amendments to the educational programmes and administrative structures of some of these are effected". (1)

Institute of Colleges

3.3 In its proposals for increasing the diversity of higher education, the Martin Committee advocated :

> "the development of three distinct categories of major tertiary institutions -
>
> (a) Universities,
>
> (b) Institutes of Colleges,
>
> (c) Boards of Teacher Education." (2)

---

(1) Martin Report, Vol. 1, p. 175.

(2) Ibid., p. 171.

It was recommended that each State should establish, by a special Act of Parliament, an Institute of Colleges as an autonomous body. The governing council of this body was to be drawn from :

"(a) The governing bodies or advisory councils of the constituent institutions (but not necessarily from all the constituent institutions).

(b) The State Department of Education.

(c) Citizens with practical interest in some areas of knowledge covered by the Institute of Colleges.

(d) Informed citizens interested in higher education.

(e) The university(ies).

(f) The Australian Universities Commission or its successor (one member).

(g) The chief executive officer of the Institute of Colleges (ex-officio)." (1)

The functions proposed for the Institute may be summarized as the supervision and co-ordination of non-university tertiary education in the State. (2)

3.4 The Committee recommended that the following types of institutions might be admitted to membership of the State Institute of Colleges :

"(a) Existing technical colleges which offer approved courses at tertiary level.

(b) Agricultural colleges which offer courses at tertiary level and which are concerned with technological material rather than with crafts and techniques.

(c) Specialist institutions which offer courses at tertiary level in the basic technology which lies behind the day-to-day practice of their specialities, e.g., graduate nursing, training of pharmacists, physiotherapists, occupational therapists, speech therapists, dietitians, etc.

(d) New tertiary institutions approved by the relevant state Institute of Colleges and the Australian Universities Commission or its successor." (3)

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(1) Martin Report, Vol. 1, p. 184.

(2) Ibid., p. 183.

(3) Ibid., p. 184.

3.5 It is clear that the Committee was concerned, though not exclusively, with the development of an existing sector of tertiary education, which in this State has been associated particularly with the technical colleges (more recently, the Institute of Technology), and also with agricultural colleges. It was proposed, however, that the curriculum of the technical colleges should be broadened to include not only an increased component of general education for students of technology, but also special courses for those wishing to prepare for administrative posts. It was maintained that :

> "The provision of senior staff qualified in some of the social sciences and humanities will enable the larger institutions to provide diploma courses in a variety of non-technical subjects; in particular, courses appropriate for young men and women taking up administrative positions in commerce, industry and government should be provided." (1)

The New South Wales Position

3.6 The proposal to establish an Institute of Colleges was not adopted by the Government in New South Wales. One of the stated purposes of the Institute of Colleges was to ensure that standards throughout each State were consistent and appropriate. In New South Wales, it was proposed to accomplish this in a different way. In this State most instruction at diploma level has, for years, been given in institutions which are integral parts of departments of government. Agricultural colleges, teachers colleges, the Conservatorium of Music and technical colleges offering courses at diploma level, are all government institutions staffed by public servants and under normal Public Service control. The Ministers for Education, Health and Agriculture agreed, in principle, to establishing a number of separate institutes. These were to cover the fields of technology, business studies, paramedical studies, music, teacher education, rural studies and the liberal arts. The plan envisaged that instruction would still be given in technical colleges, teachers colleges, agricultural colleges and the Conservatorium where the staff would remain public servants.

3.7 The change in system would come about because each institute would have a council concerned with the maintenance of appropriate courses of study, entrance standards, length of courses and the type of diplomas and certificates awarded on completion of the course. The councils were to consist of men and women with the necessary educational and industrial background to ensure that courses were constantly under review and that they were appropriate for the purposes for which they were intended. In the early stages it was envisaged that councils would be advisory but progressively would be given administrative functions which would include staff selection. In New South Wales at present the Institute of Technology has already been established and a Council appointed; the Conservatorium of Music is functioning under a Board of Governors after special legislation; the Institutes of Business Studies and Rural Studies have been agreed to in principle by the appropriate Ministers but Councils have not yet been appointed. A Board of Teacher Education has been established and consideration is still pending in relation to an Institute of Paramedical Studies.

---

(1) Martin Report, Vol. 1, p. 183.

3.8 In New South Wales no radical change is contemplated in the location of classes in the fields covered by the several Institutes. In Sydney, and possibly later in Newcastle and Wollongong, the classes in engineering, architecture and business studies will be conducted in buildings which are close to, or part of, technical colleges; buildings that may also be used for other purposes. In the same way, agricultural colleges, teachers colleges and the Conservatorium of Music would retain their identity and specialized functions. If colleges of advanced education are to be established in country districts, it would seem obvious that they would need to be multi-purpose institutions, possibly offering a college diploma of their own in some field but concerned largely with courses approved by the various institutes and leading to institute diplomas.

Country Colleges

3.9 The Martin Committee regarded colleges of advanced education as an essential feature in the development of a more diversified pattern of tertiary education and saw advantages in establishing tertiary colleges in two country centres in New South Wales, namely at Bathurst and Wagga. It was considered that each of these centres met most of the criteria which it had accepted to guide decisions concerning the establishment of new tertiary institutions. These criteria were stated in the Committee's Report as follows :

"(a) A potential enrolment of 1,500 full-time students at the end of five years appears to be necessary to provide an acceptable breadth and depth within an educational programme.

(b) The site should be readily accessible to a centre of population and provided with appropriate services including satisfactory public transport.

(c) If an institution at tertiary level is already in existence in the region, it will usually be advantageous to expand and strengthen it rather than to establish an organization de novo. The basic structure of the older institution, and the readiness of its governing body to accept the implications of such a development, will be important.

(d) Suitable accommodation should be available in a neighbouring city or town to avoid the necessity of providing residential accommodation for a majority of students.

(e) The regional population should express a lively desire to use the educational facilities of the new institution for their own children and be prepared to take an interest in the growing college or university and to foster its welfare." (1)

---

(1) Martin Report, Vol. 1, pp. 175-6.

3.10 With respect to the proposal for Bathurst, the Martin Committee was influenced by the existence of a teachers college and a technical college, and suggested that the new college might be "based upon the Bathurst Teachers College" and use the facilities of both this and the technical college in offering courses in the humanities, social sciences, education, science and the technologies. Similarly, the Wagga college might be linked with the local teachers college, technical college and agricultural college to offer a broad range of courses, including agriculture. (1)

Character of the Colleges

3.11 In its discussion of the pattern of tertiary institutions and the provision of higher technological education, the Committee outlined certain characteristics which it expected to find in the member colleges of the State Institutes of Colleges. It recommended that the colleges should provide courses similar to those offered at present, at the diploma level, in technical colleges but with an added component of non-technical subjects. The purposes of the colleges should be different from those of the universities, and in particular, the colleges should accept the emphasis which is evident in the work of the technical colleges and has been expressed in terms of their aim -

> "to equip men and women for the practical world of industry and commerce, teaching them the way in which manufacturing and business are carried on and the fundamental rules which govern their successful operation". (2)

3.12 The nature of the distinction between certain professional courses of the universities and of the technical colleges, particularly in the field of engineering, although constantly asserted in the Committee's report does not emerge clearly. The sensitivity of the technical colleges to the immediate needs of industry is stressed, as is the practical (as opposed to theoretical) orientation of the courses, but, on the other hand, the Committee recognized the importance of a sound background of basic science and theory :

> "One of the consequences of the continuous growth of new knowledge in many fields is the need to develop in students a capacity to learn throughout life. More than ever before, it is essential that the technologist, in particular, should have the ability and the will to take stock of his own store of knowledge in the light of new scientific discoveries. Too great concentration upon technical details may easily inhibit his capacity to assess the value of new ideas and adapt his specialization to them." (3)

One of the problems which the new institutions must solve is this conflict between immediate and longer-term goals : to what extent the college programme should be devoted to the development of knowledge and skills which will find immediate application in specific work situations; and to what extent there should be concern with the promotion of the more basic understandings necessary for future professional growth.

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(1) Martin Report, Vol. 1, p. 186.

(2) Ibid., p. 165.

(3) Ibid., p. 186.

3.13 When the concept of colleges of advanced education was first stated, comparison was drawn with universities. This has engendered considerable discussion. In a paper read recently, Mr. J.H. Kaye, a member of the Commonwealth Advisory Committee on Advanced Education, commented and enlarged upon what had already been stated in that Committee's report (1) concerning the colleges as follows :

> "(a) The students would have somewhat different types of interests. They would be more interested in the application than in the development of knowledge. Almost invariably they would have already decided on the career they intended to adopt.
>
> (b) There would be a greater concentration upon part-time studies associated with employment, especially in scientific fields. In universities, part-time study is associated more with non-scientific and non-technological fields.
>
> (c) There would be more emphasis on applied science than basic science.
>
> (d) There would be a more direct and intimate relationship with industry and other relevant organizations.
>
> (e) There would be less attention to post-graduate training and research.
>
> (f) There would be a primary emphasis on teaching".

3.14 In section 5 of this report we comment upon the principles which we feel should be considered in any decision to set up a college of advanced education.

----

4. COMMONWEALTH GOVERNMENT POLICY

4.1 Until some ten years ago the Commonwealth Government refused to make specific grants for education, arguing that the way in which the States apportioned the money received from the Commonwealth was a domestic matter. When it was decided to make grants specifically for universities there was usually a condition that the State should, from its own resources, make a matching grant. In making money available for other forms of tertiary education, the Commonwealth has usually laid down certain conditions that have to be met if the financial aid is to be attracted.

4.2 It is obvious that the State Government, if it so desires, may establish colleges of advanced education without Commonwealth aid. It is well known, however, that State funds are limited and Commonwealth aid is necessary. For this reason, the present Commonwealth policy in relation to colleges of advanced education is of importance.

4.3 Statement of this policy followed the presentation of the Report on Tertiary Education in Australia (the Martin Report). In his speech, when presenting the Report to Parliament, the Prime Minister foreshadowed the development of the new colleges "from and around the existing tertiary segments of existing technical colleges" but not confined to technical subjects. Their educational programmes would involve "a common core of subjects at tertiary level aimed at providing for all students attending the college 'breadth in education and the development of critical imagination and creative abilities'". The students would "major in technological courses or in other courses provided by the colleges to fit them for particular careers after they had gained their diploma". (1)

4.4 Further, the Prime Minister said of the colleges that they :

> "would provide for those students who, though qualified, do not wish to undertake a full university course, or whose chosen course is not considered appropriate for a university, or whose level of passing at matriculation indicated a small chance of graduation from a university in minimum time or minimum time plus one year". (2)

4.5 In August, 1965, when the Commonwealth Government appointed the Commonwealth Advisory Committee on Advanced Education under the chairmanship of Dr. I. W. Wark, to furnish information and advice to the appropriate Minister, it was asked advice on matters related to the grant of financial assistance by the Commonwealth -

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(1) Sir Robert Menzies : Commonwealth of Australia, Parliamentary Debates, 24th March, 1965.

(2) loc. cit.

> "(a) to Commonwealth institutions, other than universities, teaching at the advanced education level, and
>
> (b) to the States in relation to institutions, other than universities, teaching at the advanced education level, whether or not conducted by them." (1)

The terms of reference defined these institutions as those -

> "whose courses require as a standard of entry the satisfactory completion of full secondary schooling and provide on completion a standard of attainment at diploma level (but not at degree level)." (2)

Teachers colleges and any segment of a college of advanced education concerned primarily with teacher training were excluded from Commonwealth financial support. In recent months, however, specific capital grants have also been made to the States to establish new teachers colleges.

4.6 This exclusion is of importance to our consideration of a college of advanced education outside Sydney, particularly as the policy outlined in the Martin Report, and apparently supported by the Commonwealth Government, envisages such colleges as being "based on" existing tertiary institutions, including specifically the teachers colleges in Bathurst and Wagga. It appears to mean that in training teachers, courses aimed at increasing knowledge in a particular subject could be the function of a college of advanced education but anything related to the actual techniques of teaching would be excluded.

4.7 While the exact intention of the Commonwealth Government was clearly stated it would seem that its views are being modified. Even a cursory examination of likely students reveals that trainee teachers and teachers will constitute a large proportion of the student body of a college of advanced education. The reservations of the Commonwealth about what it will assist in teacher education and what it will not, may cause accountants worry, but should not unduly impede the growth of a college.

4.8 In its financial recommendations, the Martin Committee included the provision of $200,000 for capital expenditure on each of the two proposed colleges at Bathurst and Wagga respectively for 1965-66, the grants to be met on a dollar for dollar basis by the Commonwealth and State Governments. (3) No recurrent grants were recommended for the period.

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(1) Colleges of Advanced Education 1967-69, p. 57.

(2) Ibid., p. 57.

(3) Martin Report, Vol. 1, p. 223.

Commonwealth Advisory Committee on Advanced Education (Wark Committee)

4.9 The establishment and terms of reference of the Commonwealth Advisory Committee on Advanced Education have been noted above (4.5). The Committee produced its first report in June, 1966, including not only recommendations for the 1967-69 triennium, but also further elaboration of the concept of these colleges as viewed by the Committee.

4.10 It was established that in order to qualify for Commonwealth support a course must require as a standard of entry "the satisfactory completion of full secondary schooling and provide on completion a standard of attainment at diploma level". (1) The course must proceed for at least two years at tertiary level to be eligible for assistance. (2) This was not completely rigid as the Committee declared itself prepared to consider the question of approval "for exceptional courses which do not formally meet these requirements but which .... lead to a level of attainment and a qualification such as is usually expected of a diploma course". (3)

4.11 In considering the difference between universities and colleges of advanced education, (4) the Committee was led to recognize that the matriculation requirements of the universities would not necessarily be appropriate to the colleges :

> "Other forms of assessment in terms of particular subject requirements or types of tests and assessments may prove to be more appropriate for entry to and success in colleges of advanced education." (5)

4.12 It would appear then that, while completion of the full secondary school course of six years is expected in New South Wales as a prerequisite for admission to a college of advanced education, satisfaction of university matriculation requirements is not considered necessary.

4.13 The Committee emphasized the importance of a diversity of courses if a college of advanced education is to provide "the broad educational basis and cross-fertilization of ideas which are among its essential features", and suggested that the institutes of technology and the technical colleges should give "greater emphasis to such fields as art, management, and social sciences". (6)

4.14 Having regard to the suggested location of the new colleges in New South Wales, the views of the Committee concerning agricultural education are of special importance. The Committee noted the range of courses being provided at certificate, degree and diploma level, to meet the corresponding diversity of functions related to agriculture, and reasoned that because -

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(1) Colleges of Advanced Education, 1967-69, p. 35

(2) loc. cit.

(3) loc. cit.

(4) Ibid., pp. 22-3.

(5) Ibid., p. 22.

(6) Ibid., p. 19.

> ".... of the enormous variability in biological and economic conditions of agriculture the courses must be in principles of biology, economics and mechanics of agriculture, not details of recommended practices, and designed to provide a base for further learning from experience and reading, and for interpretation and evaluation of mass media and commercial material." (1)

4.15 The Martin Committee emphasized the need for developing paramedical courses to meet the demands of the community, and the Wark Committee has followed this lead. Post-graduate nursing training, such as that offered by the N. S. W. College of Nursing, was found to be of the required standard for Commonwealth support. Diploma courses in such fields as physiotherapy, radiography, speech therapy, medical laboratory technology, and chiropody are found in various technical colleges or institutes of technology and are also recognized for Commonwealth support. (2) The decision in relation to nursing seems to indicate that work experience and technical knowledge in certain circumstances could be a substitute for the formal studies of the later years of a secondary school course.

4.16 The Wark Committee reached a number of conclusions from its consideration of the role of liberal studies in colleges of advanced education (3) and, in general, these are most relevant to the planning of a new college. The more significant of them may be summarized as follows :

- "In large cities the multi-purpose institution provides the best opportunity for a liberal education."
- "Gearing of studies in the social sciences and humanities to specific vocations is favoured; the technological ones are already so geared. In neither case must the studies be narrowly vocational."
- "Recreational and social facilities should be provided for students and staff."
- "Residential colleges and halls of residence should be established when practicable."

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(1) Colleges of Advanced Education, 1967-69, p. 46.

(2) Ibid., p. 50.

(3) Ibid., p. 55.

4.17 It is noted too that in the recommendations for Commonwealth grants for the 1967-69 triennium, the Committee made provision for the full range of facilities including library, student amenities block, assembly hall, and residential accommodation, as needed by the various institutions.

4.18 The Wark Committee rejected the possibility that the colleges of advanced education might be patterned on the American community college :

> ".... we cannot too strongly emphasise that a college of advanced education is not be confused with the type of college generally known in American as a junior college. Such colleges do, in fact, present courses with recognized end qualifications but they are confined to pre-university and technician training. We point out that the colleges which we hope to develop in co-operation with the States will offer professional level courses in their own right." (1)

4.19 We do not believe that we should disregard certain significant features of the American community or junior college which have particular relevance to the situation with which we are concerned. These colleges are recognized as the growing point of tertiary education in the United States providing opportunities for a large number of young people who need further education but who are not obviously of university calibre. Because their programmes are closely related to community needs they can, at best, become the focus of community development. They serve as a counter to the centralization so characteristic of the universities and other major institutions. For these reasons, we have not rejected the community college idea in considering how best to meet the educational requirements of the country areas of the State.

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5. PRINCIPLES ADOPTED IN PROPOSING A COLLEGE OF ADVANCED EDUCATION

5.1 From the foregoing summary of the views expressed by the several bodies responsible for the development of colleges of advanced education in Australia, we may derive a number of guiding principles for use in the further consideration of proposals for a new college. This we have done for the specific case of a college in the central western region of this State and in stating these principles we have also indicated where we have some reservations :

(a) Satisfaction of Conditions for Commonwealth Financial Support -

While it is not essential that a college of advanced education should attract Commonwealth Government support, it is obvious that this is highly desirable for the major part of the college programme. A hard pressed state treasury could give little consideration to a proposal to establish a college unless adequate Commonwealth assistance were available. With this in view we have advised giving priority to courses which would attract Commonwealth assistance.

(b) Entrance Level -

In general, courses of the college should be based on a level of entry corresponding to completion of the full secondary (Higher School Certificate) course. It would be undesirable to interpret this requirement in such a way as to preclude extension work or adult education programmes from the college. In addition, we do not consider there should be rigid adherence to the standard attained at school and educational experience after leaving school should receive some consideration even if this is related to technical or professional training rather than general education.

(c) Aims of Courses -

The courses provided at a college of advanced education should have the following four aims :

(i) to provide a basis on which people may make wise choices, both as individuals and as citizens in a democratic society;

(ii) to give an understanding of, and adequate mastery of, those sciences or arts necessary to further vocational education or desirable for avocational pursuits;

(iii) to give specific training in vocational knowledge and skills at a level appropriate to tertiary education;

(iv) to offer development experience in avocational pursuits dependent on tertiary level study. Included in this would be courses of studies beyond the basic diploma courses.

(d) Duration of Courses -

We understand that the minimum length of course acceptable to the Commonwealth authorities is two years' (full-time) study at the tertiary level. We accept this as a minimum for basic courses but recognize the need for longer courses, depending on the nature of the special field concerned. These may be necessary to bring students to the desired level of professional competence.

(e) Award to be Offered -

The basic award of the college should be at diploma level, indicating the completion of a course which may be both vocationally oriented and possibly of shorter duration than one leading to the bachelor's degree.

(f) Breadth of Academic Programme -

The college of advanced education should provide a considerable range of programmes chosen from those associated with vocations in such fields as administration, agriculture, commerce, communications (press, radio, television), engineering, law, librarianship, management, paramedical services and teaching.

(g) General Education Programmes -

We consider that courses leading to a diploma should provide opportunities for the development of the student's general education. In addition, provision should be made for students who may wish to pursue a 2-year general education course without a specific vocational goal.

(h) Transfer Programmes -

If it is possible, provision should be made for students who may wish to pursue, for one or two years, courses which would permit entry with advanced standing into the specialized courses of other institutions.

(i) Teacher Education -

The preparation of future teachers and the continued education of teachers in service we regard as two most important segments of the work of a college of advanced education established outside the metropolitan area. We propose that the college to be established should incorporate the present teachers college. We would hope that this would mean the integration of the academic work of future teachers within the total college programme but, at the same time, the retention of certain distinctive and necessary aspects of the preparation of teachers which are now included in the teachers college programme. This could involve a college of advanced education in instruction in such subjects as handcrafts, not usually included in academic courses. It would be most important that the qualification received by students would satisfy the conditions for certification in the work situation.

(j) Residential Facilities -

Any college outside the metropolitan area will require residential facilities if it is to be viable. Such facilities should be planned as an essential part of the college. No population centre outside Sydney, Newcastle and Wollongong could support a tertiary college of any kind without drawing students from a wide area beyond the range of daily travel.

(k) Community Interest -

Although any institution of higher education should plan to serve the whole State or, indeed the Commonwealth, a major source of criteria for the development of the programme of a country college of advanced education should be the interests and needs of the local community in which it is placed. The college should not merely meet present demands but should be used as a means to the development of both the community or region, and the individuals within it.

(l) Extension Programme -

To provide maximum service to its region, the college must develop a variety of courses and activities directed to specific interests and needs apart from those which lead to full diploma courses. The college should be planned in such a way as to incorporate an extension programme as an integral part of its work. While accepting this, we realize also that if the colleges are to occupy an important place in tertiary education the students concerned with diplomas must have an identity of their own and constitute a substantial and significant group within the college.

(m) Research -

Although the primary emphasis of a college of advanced education is in teaching, effective teaching is promoted by its association with research and scholarship. Some research facilities, and particularly an adequate library service, are needed for the attraction, retention and continued professional growth of the staff. A college should also act as a centre for the study of problems associated with its region, and provision for this should be made.

(n) Relations with other Institutions -

In the absence of an Institute of Colleges in this State, it will be necessary for the college to establish relations with the several institutes operating in such fields as business studies, paramedical studies, rural studies, teacher education and technology. Students will expect that courses offered will gain the approval of the respective State institute.

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6. DIPLOMA COURSES AVAILABLE IN NEW SOUTH WALES

6.1 What has gone before in this report constitutes a brief summary of background information available to us. It is of great significance that, while the Martin Committee envisaged the possibility of colleges of advanced education granting degrees, their main awards would be diplomas. We thought it desirable, therefore, to examine the situation in this State in relation to courses leading to diplomas. In doing this we have endeavoured to indicate courses that might be considered for country colleges.

6.2 For many years the Department of Technical Education conducted diploma courses. These were mainly in engineering, architecture, science and art. On completion of a satisfactory course the student received the award, Associate of the Sydney Technical College (A. S. T. C.) provided he also had the necessary industrial experience. When the New South Wales University of Technology (now the University of New South Wales) was established in 1949, the Department of Technical Education delegated to it the task of giving instruction in most of these courses. In 1960, the Department decided to discontinue awarding diplomas in engineering, architecture and science but some years later, following requests from various industrial organizations and individuals, it re-established some diploma courses in the newly formed Institute of Technology. Following the Martin Committee Report and the provision of financial assistance by the Commonwealth Government, re-establishment of courses was accelerated.

6.3 The present position is that the Institute offers diplomas in architecture, building, engineering, quantity surveying and science. Total enrolments as at First Term, 1967, are :

Architecture		136
Building		24
Engineering		467
Mechanical	137	
Production	45	
Electronic	90	
Electrical	102	
Civil	80	
Structural	13	
Quantity Surveying		10
Science		322

Engineering

6.4 As can be seen from the above enrolment figures there are six diplomas in engineering. The Department is erecting a building of some twenty storeys, the first of a complex of buildings, in Sydney to cater for the instruction of students seeking diplomas. Some students studying at certificate level will also receive instruction in this building. Although the possibility of courses for engineers outside

Sydney has not been overlooked it will probably be some time before there is an extension of full courses to suburban colleges. It is unlikely that there will be instruction outside Sydney for some years at least. The Department advances two reasons for this policy :

(i) it is considered impossible to get a sufficiently large group in any country centre to warrant the expense of instruction involving as it does costly and specialized laboratories;

(ii) it is extremely difficult to provide teaching for engineers on a part-time basis except near production units employing large numbers of men.

Although full-time instruction of students seeking diplomas is contemplated, it is anticipated that there will also be a high percentage of part-time students. The development of courses in Wollongong and Newcastle will depend largely on the future policy of the University College at Wollongong and the University of Newcastle.

6.5 The Diploma in Engineering of the Sydney Technical College was recognized by the Institution of Engineers of Australia and it is hoped by the Department that recognition will be granted to the new diplomas. The courses are designed for this purpose in that they require an educational prerequisite close to matriculation standard and involve considerable study of basic sciences, particularly mathematics, physics and chemistry. The diplomas also require a set minimum of industrial experience.

6.6 The traditional approach to the training of engineers has required expensive equipment and specialized staff and, under these circumstances, it would be difficult to provide adequate facilities in a country college. There is some evidence that it is possible to devise satisfactory courses in engineering with a greater emphasis on engineering science and that such courses will play an increasingly important part in engineering education. These courses are less dependent on the availability of heavy equipment and are more likely to be possible in a smaller college. Apart from this development, we think that there are possibilities in at least two special fields. The first of these is the training of civil engineers specifically for employment with local government bodies such as Shire and Municipal Councils. The second is for the training of "rural engineers".

6.7 During the course of our investigations we were informed that there was a need for a person who has been designated a "rural engineer". This really means a graduate or a diplomate trained as an agronomist who subsequently has been given a course involving some general engineering. We were assured by an expert witness that there is an urgent need for "rural engineers" and that a graduate or diplomate agronomist could be trained in about four terms and without expensive equipment. If this is the case, such a course would be appropriate in a country college.

Architecture

6.8 While it is recognized that there is a shortage of architects it would be unwise to establish a course in a country centre where only a few students would be likely to gather and these would be trained away from the not over large groups in training in the universities and the Institute of Technology. The University of Newcastle has been offering architecture for some years and the number of students is very small; during the three year period 1962-64 there have been only ten graduates.

Science

6.9 When it was decided several years ago to revive the science diploma within the Institute of Technology, the Department was faced with shortages of staff and lack of suitable laboratories and equipment. Up to the present, classes have been established on a restricted basis but they have not lacked students. It is difficult to assess what might be the magnitude of the demand if restrictions were removed. Organizations employing a large number of scientific workers during the last two decades have been prepared to offer liberal scholarships and, for this reason, the number of people aspiring to science courses on a part-time basis has not increased as rapidly as is the case in some other fields. A science diploma would be of some interest to school teachers because the diploma carries with it graduate status for salary purposes.

6.10 There is a growing demand for laboratory staff at the present and, in some of the large laboratories, a demand for a person who could relieve highly qualified scientific officers of some of the more routine work. There are in existence several courses at certificate level which combine some theoretical instruction with considerable on-the-job training but the complaint is made frequently that the people trained in this way are not capable of carrying out much of the work from which the highly qualified scientific and research workers seek relief.

6.11 A diploma course for people such as this would be desirable and should considerably shorten the length of time required for on-the-job training. Examples of employment opportunities for this type of person are as assistant chemists in some of the big testing laboratories such as with the Mines Department and the Agriculture Department. Where there are large staffs it is possible to allocate work according to the degree of difficulty in responsibility; where there are smaller staffs it is frequently desirable to have a person much better trained than at certificate level to give assistance to qualified professional people who often have a variety of duties to perform. This is the case in the pathology laboratories of smaller hospitals.

6.12 Courses in basic science, either physical or biological, seem to us to be suitable propositions in a college of advanced education and worthy of consideration. In fact, we are of the opinion that courses which provide the basic scientific and background education on which later technical skills might be added, could be a useful addition to the State's educational provisions at the tertiary level.

6.13 In addition to the diplomas mentioned above, the Technical Education Department, through the Institute of Business Studies which has been established this year, is offering diploma courses in commerce, management and public administration.

Commerce

6.14 The course in commerce is a new venture and has been commenced because the Australian Society of Accountants is no longer prepared to accept the Department's Accountancy Certificate for membership purposes. The new course is at present in its infancy and it is rather difficult to predict how many students will be attracted. If it follows the line of other commerce courses, there will most certainly be a considerable number of students. The initial applications for enrolment of over four applicants for each place available has exceeded the Department's expectations. The Department contemplates conducting classes in country technical colleges if numbers warrant this but has grave doubts about its ability to enrol sufficient students or to provide sufficient staff even in large towns for several years. There will still be the Commerce Certificate course available for those who are not concerned with membership of the Society of Accountants.

6.15 Commerce diploma courses could be conducted in a country centre without great difficulty as they do not require expensive equipment and can be adapted to part-time instruction and education by correspondence.

Management

6.16 The Department has for many years offered the diploma in management and this also is being taken over by the Institute of Business Studies. Diplomas in management are in a somewhat different category from the diplomas discussed up to date because there is considerably less instruction in basic sciences. There is an increasing interest in management and there would be no difficulty in commencing such a course in a country centre except the necessity to provide some form of residence for students and attracting suitable staff. Management is a relatively new academic field in Australia and it is difficult, at present, to obtain lecturers who have academic qualifications equal to those expected in staff dealing with other diploma courses.

Public Administration

6.17 Public Administration has become an important diploma course for New South Wales public servants, particularly those under the control of the Public Service Board, because the holding of such a diploma is one of the qualifications accepted for promotion to senior administrative positions. At the present time, the diploma course is conducted on a part-time basis and students living out of Sydney will have to follow correspondence courses when they are provided. This again is a course that does not require a great deal of equipment and could be offered quite easily in a country centre provided some satisfactory arrangement can be made for attendance at the college for specific periods.

6.18 At the present time students wishing to obtain diplomas in commerce, management or public administration must either come to Sydney or make do with whatever correspondence courses are available. A course which involved limited periods of residence in a college, together with correspondence projects, would almost certainly attract students.

Art

6.19 The Department of Technical Education, through the National Art School, conducts diploma courses in fine arts, design, teaching of art and industrial arts. While the courses contain some elements of theoretical study, they are mainly concerned with practical application and the development of ideas. In all cases, the successful student must demonstrate that he has a very high standard of operative skill.

6.20 Until quite recently there has been little decentralization of classes, most of them being conducted at East Sydney Technical College. Classes have now extended to suburban colleges, to Newcastle, Wollongong and to Canberra. To offer an art or design diploma in a country centre it would not only be necessary to have students attending a college for a considerable period on a full-time basis but it would also be necessary to have a supply of teachers with special competence. The National Art School is most insistent that it can only continue to hold its place as a teaching institution provided its teachers are people who have some standing in the art world. To provide art diploma courses in a country college would involve the difficulty of obtaining suitable teachers. Nevertheless, instruction in art lends itself to variations of the normal classroom instruction and to correspondence teaching for a country college.

Agriculture

6.21 The Department of Agriculture is at present responsible for the provision of diploma courses in its colleges at Hawkesbury and Wagga.

6.22 The Hawkesbury Agricultural College has been in existence for some 65 years and its diplomates have established a reputation for themselves throughout Australia and overseas. Originally, the course was intended to provide training for the practising farmers but over the last few decades the proportion of ex-students going back to farming has decreased. Only about one-third of the graduates of the college become farmers, the remainder have come to be known as "career diplomates" and are employed in a wide range of occupations as extension officers in the Department of Agriculture, as soil conservation officers, as organizers of junior farmer clubs, by banks and the Valuer General's Department as valuers and by commercial organizations where technical knowledge in agriculture is desirable.

6.23 There are three diploma courses at Hawkesbury - the diploma in agriculture, the diploma in dairying and the diploma in food technology. At Wagga one diploma course only is offered in agriculture. The educational prerequisite is the School Certificate but, as a result of pressure of numbers, many students have passed the Leaving Certificate Examination and from 1970 onwards, the entrance standard will be the Higher School Certificate.

6.24 In the main, students have school records less outstanding than those seeking to enter a university. The courses themselves involve considerable time in the study of basic sciences but there is also a very high content of practical work. This means that the diplomate, although he may finish with a very good general knowledge of farming in all its aspects, has not reached a standard approaching that of graduates in basic and applied science. Following on an investigation some six years ago, there has been a number of modifications of the courses leading to diplomas in agriculture and they now contain an increased content of science, both basic and applied.

6.25 Diplomates, at the present time, have no difficulty in obtaining employment and it is quite certain that if another college were opened it could easily be filled. There is, however, a problem of expense. A comparatively large area of land is necessary and the cost of a new agricultural college fully equipped on conventional lines and providing residence for students has been estimated to cost over $5 million.

6.26 There is a growing demand that there should be a somewhat different diploma of agriculture. This would include a good deal of background knowledge of all aspects of agriculture but with emphasis on the economic and managerial side rather than on the technical and scientific. This was discussed with us by a number of people and we can see no reason why such a course could not be given in part, at least, at a college of advanced education situated in a country town. It would not involve as much equipment as a conventional college and could, in fact, be conducted in any district where examples of well-run farming units are available for study.

Dairying

6.27 The diploma in dairying is a very specialized course. In view of the state of the industry at the present time few of the diplomates return to farming and development of a course in a country centre would involve an expensive specialized college. The Central West of New South Wales is not an appropriate location because of the type of farming in the area.

Food Technology

6.28 Entrance to the food technology course is restricted because of limited facilities and Hawkesbury College every year has to turn away quite a number of students. Since it is the only course of its kind in Australia, students come from all over the continent. A duplication of this unit away from the Hawkesbury College would involve some expense as an amount of machinery would have to be purchased and there also has to be ready access to a large and varied supplied of vegetables and fruit. Up to the present, proposals to increase the number of students have been related to expansion of the Hawkesbury unit. A second unit established in the region we are considering would have great value in increasing the number of students in training. Supplies of the necessary vegetables and fruit would be available and there is already at Bathurst a large processing factory which is being expanded.

Music

6.29 The Department of Education is responsible for the diploma in music which is awarded by the Conservatorium of Music and also in the same institution a number of prospective music teachers for high schools receive a considerable proportion of their training. The diploma in Music has no fixed educational prerequisites but it is a course in which students reach a very high proficiency as performing musicians. Most of them would be capable of matriculation and, in fact, many have passed examinations at that level.

6.30 Quite recently the Conservatorium has been placed under the control of a Board of Governors and it has been suggested that attempts should be made to extend instruction to country centres. At present there is a small subsidiary Conservatorium at Newcastle but no attempt has been made to establish others. It would be difficult to maintain a unit of the Conservatorium outside a large population centre although it might be possible to provide instruction in the playing of the more popular instruments. This is, in fact, done quite efficiently by private teachers in many towns.

6.31 The diploma course is not confined to training students for musical performance. It also provides education in the accepted sense and the musical atmosphere, the presence on the staff of well-known musicians and the opportunity to take part in such activities as the Conservatorium orchestra, are considered essential.

6.32 It is difficult to see any decentralization of the Conservatorium diploma courses to country centres for some years though teaching on a more limited basis could possibly be extended. The training of infant and primary teachers calls for experience in music and the college of advanced education could well encourage the development of associated music teaching.

Teaching

6.33 The above represent the main diploma courses provided by government departments in New South Wales. There are, however, some courses which do not lead to a qualification designated as a diploma but which we feel reaches diploma level. These are the 2-year courses for infant, primary and junior secondary teachers conducted in teachers colleges of which there are eight. The educational prerequisite is the Leaving Certificate and in recent years entrance has been competitive so that a bare pass at this level is not sufficient. Next year the minimum entrance qualification will be the Higher School Certificate.

6.34 The courses involve two years' full-time study and include some practice in teaching in the classroom. On conclusion, the students are employed by the Department of Education in various schools but the Teachers Certificate of the Department is not issued until after three years' satisfactory employment.

6.35 The educational prerequisites and the standard demanded would suggest that, at the conclusion of the pre-service training period, teachers should be awarded an appropriate diploma

6.36 Each year some 2,000 two-year trained teachers enter the teaching service. One of the problems that has been facing the Department of Education and the Public Service Board over the years has been the fact that two years' training, which is regarded by many people as being inadequate for primary instruction, is obviously inadequate for teaching in high schools. In addition to this, degree courses are often not specifically designed to meet the needs of teachers.

6.37 A course involving some two years at a college of advanced education, followed by some form of instruction in the special problems of teaching, could have considerable support. Possibly a more acceptable method of training would be a 3-year course integrated with instruction in teaching practices. In this connection, the Public Service Board might be expected to adopt the same principles for salary purposes as it adopts with other diplomates and recognize the period of training.

6.38 The use of a college of advanced education for training teachers, wholly or in part, is recommended by the Martin Committee although the Commonwealth had considerable reservations in providing assistance. If such a college were established at Bathurst, co-operation with a teachers college could be achieved. In the early years, at least, a college of advanced education might have to rely rather heavily on teachers or trainee teachers to provide students for its courses.

Paramedical Studies

6.39 The above are the diplomas available in New South Wales for the larger professional groups. In all cases the courses have been conducted by government departments. There are, however, several well-recognized diplomas which are controlled largely by professional organizations. These are mainly in connection with paramedical studies in the fields of speech therapy, occupational therapy and physiotherapy. In recent years there has also been a certificate in medical technology.

6.40 The numbers being trained in these fields are quite small. The yearly intake for physiotherapy has been some eighty students, for occupational therapy thirty-five and for speech therapy twenty-five. Even a cursory examination of the situation in hospitals reveals that not sufficient of these people are being trained.

6.41 The courses involve basic scientific knowledge related to anatomy and physiology and also a good deal of practical application. The standards generally are high and the diplomas are well-recognized.

The numbers involved, however, even if they were doubled, would not be significant in providing candidates for a college of advanced education in a country centre. The use of large hospitals with a wide variety of patients and access to the facilities of a dissecting room are some important requirements in training students in the various types of therapy and, therefore, a college in the country would have only limited use.

6.42 The number of people required in hospitals with a training in some of the sciences is increasing and, in particular, more and more laboratory workers are needed. There are complaints that the present certificate course is not adequate for officers who have to work alone in country hospitals. A course at diploma level would certainly attract some students. It should not be impossible to integrate much of such a diploma course with a course for other types of laboratory workers.

6.43 The method of training nurses in New South Wales is, at present, under review. The basic training for a nurse involves an educational prerequisite of the School Certificate together with four years' training in a hospital. Most of the training is done in wards but there is some study of academic subjects as well. The registered nurse in New South Wales does not have the type of training usually associated with a diploma; it is more akin to the certificate of the technical college. The College of Nursing has been endeavouring to provide additional training for nurses who will occupy senior positions and, with this in view, has been endeavouring to get some students to take an arts course at a university, followed by a shorter training period in hospital. A suitable diploma course of some two years has distinct interest to the College of Nursing.

Legal Qualifications

6.44 In New South Wales there are two methods of training for the legal profession. One is through the university and the other is through the Barristers Admission Board and the Solicitors Admission Board. Until quite recently candidates for examinations conducted by these Boards received very little assistance but they do now receive a certain amount of correspondence coaching.

6.45 For these legal examinations there is a very definite educational prerequisite and the successful candidates are admitted to practise as barristers or solicitors. The standard of these examinations could definitely be assessed as equal to that of a diploma and, as with engineers, professional recognition is granted. Establishing courses for this type of instruction would present a number of difficulties but none would be associated with equipment. In Victoria, assistance is given in technical colleges to young men and women seeking legal qualifications although technical college examinations are as yet not recognized and students must spend their later years of study at a university.

6.46 Similar principles introduced at a college of advanced education would provide a great deal of assistance. A number of students from all over New South Wales would be attracted provided that periods of residence were limited and correspondence work well-supervised. In time, the Barristers Admission Board and the Solicitors Admission Board might be prevailed on to co-operate in, and recognize, college examinations.

6.47 Up to the present in New South Wales, legal qualifications have been associated entirely with registration and the right to practise as a barrister or solicitor but there is a growing number of people employed by government departments and commercial firms who are required to have quite extensive legal knowledge in a somewhat restricted field. An example of this is industrial law. A course in industrial and/or commercial law would almost certainly have considerable support.

6.48 There are other diplomas available in New South Wales but they are not of great consequence in providing numbers of students and several of them would not be regarded as meeting professional requirements; they are more akin to the technical college certificate.

6.49 An important feature of diploma courses at present provided in New South Wales is that they are directly associated with vocational training. There is not, as yet, a diploma course in this State which is concerned with the improvement of a student's education rather than with providing him with professional qualifications.

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7. THE MITCHELL, LACHLAN AND MACQUARIE REGIONS AND THE DEMAND FOR ADVANCED EDUCATION TRAINING

7.1 Very early in our investigation it became clear to us that appropriate statistics were often difficult to obtain. This meant that it has been difficult also to give reliable estimates of the numbers of students likely to be interested in certain courses. Lack of this information in turn has made it equally hard to assess the value of a college in the development of the area. We have had to rely largely on an examination of possibilities rather than positive estimates. This does not mean that estimating student numbers has been entirely guesswork. Accurate information of courses already in existence is available and the present pressure on accommodation in these classes is known. In addition, the survey made by our research officers has given some indication of potential students and potential demand in the area. The reports of these two officers have been attached as appendices to this report.

7.2 We have been careful not to suggest that students would be forthcoming if we had doubts about this being realized. The story of the provision of educational facilities in New South Wales has been that, once established, the demands made on the facilities increase. We have no reason to think that colleges of advanced education would be any different and once people in the area realized the value of the institution there would be pressure for expansion of services. In New South Wales today courses leading to professional qualifications would attract some students no matter where they were conducted.

Level of Courses

7.3 Very early also we realized that most people talking to us had no clear idea of the standards usually associated with diploma courses. Quite a number of the proposals made to us were more appropriate to courses at certificate level. This confusion is easy to understand because even in the minds of educationists there is not always a clear line of division. Policy determinations have made it apparent that a college of advanced education will attract Commonwealth financial assistance only for courses at diploma level. This would not preclude shorter courses at post-diploma level, but, in relation to certificate courses, all costs would probably have to be borne by the State Government.

7.4 The Commonwealth Advisory Committee on Advanced Education has suggested on several occasions that the conducting of courses at diploma and certificate level in the one institution presents some difficulties though this is a feature in some technical colleges. This need not, of necessity, prevent classes at diploma and lower levels being conducted in the one institution but it does mean that courses below diploma level should not become a major function of a college of advanced education.

7.5 The Technical Education Department has developed the machinery and staff for offering courses at certificate level and it would seem to be a wise policy to allow the technical colleges to continue to do this. This could mean that colleges of advanced education would confine themselves largely to diploma courses but we would hope this would not develop into something in the nature of a prohibition against courses below diploma level in a college. If the lack of diversity in tertiary education noted by the Martin Committee is to be altered, institutions must not be put in strait-jackets. In connection with a certificate course in agriculture, we have a recommendation which we will discuss later in this report.

Population to support a College

7.6 An examination of the population distribution of this State discloses that there is not a population centre in Western New South Wales capable of supporting a college of advanced education without assistance from other centres. It has been estimated that a population of eighty to one hundred thousand people could produce enough students to justify establishing a college but this is probably a conservative figure. There are no inland cities in New South Wales with more than a third of these numbers. This means that, while halls of residence and residential colleges have been considered desirable in a university even when students have daily access to classes, in the institution we are proposing some form of living accommodation for students is essential.

7.7 During the course of our investigations, parents of sixth form students attending schools in the area were invited to reply to a questionnaire related to the establishment of a college of advanced education. The replies received indicate the following parent preferences and attitudes which have assisted us in arriving at some of our conclusions.

7.8 When asked what they considered the maximum distance reasonable for students to travel to a college each day, but not necessarily to a country college, only 1 per cent of 543 parents considered a distance of over 40 miles to be reasonable. On a similar question related to time, 18 per cent thought their sons or daughters could spend between 45 and 60 minutes travelling to college daily and a further 3 per cent thought a slightly longer period would be acceptable. These figures should be borne in mind when interpreting the preferences of parents for their children to be in residence at a regional college.

7.9 Parents were asked whether they would prefer their children to travel daily to the college or become residents at the college on the assumption always that the daily travel should be for a reasonable distance only. Commuting was seen as most desirable by 60 per cent of those answering the questionnaire while only 27 per cent had a definite preference for residence at the college.

7.10 As yet, few attempts have been made to transport students at post-school level from town to town. If a college were organized on conventional lines and students were required to travel five days a week for three terms per year, this might place a great strain on any system that was based on privately owned cars with student drivers. Experience of the Education Department has demonstrated how expensive transport becomes when drivers as well as vehicles have to be provided.

7.11 If instruction could be arranged on the basis of travel for only four days per week or travel for shorter periods interspersed with days at home, it should be possible to draw students within a radius of up to fifty or sixty miles. Such a scheme, of necessity, would involve some organization and possibly some financial aid to students but it seems to us to have possibilities. It would permit more students to travel daily and reduce the number requiring residential accommodation.

Parent Attitude

7.12 During our visits to various centres in the Central West, a number of people stated that they desired a college in their own locality so their children would be able to live at home for a further two or more years. This point of view was expressed very strongly by a number of representatives of women's organizations. Many people said, however, that a college within a hundred miles of their residence would mean that children could return home for weekends. This would be of assistance financially and would enable parents to provide some supervision. Some parents suggested it was not a good plan for country children to be educated in the metropolitan area as this frequently led to a lack of inclination to return to country life. They added that the State should provide educational facilities in the country so that it would not be necessary for students to go to Sydney to further their education.

7.13 That parents in this area of the State desire further education for their sixth form sons and daughters was apparent from information received when 543 families completed questionnaires relevant to aspects of our investigations. Table 1 shows the principal activities in which these parents would like to see their children engaged in 1968 :

TABLE 1 : Parent Preferences for 1968 Activities of Sixth Form Students in the Mitchell, Lachlan and Macquarie Regions in 1967.

Plan	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Undertake further education full-time	208	70	214	87	422	78
Work part-time attend courses part-time	58	20	20	8	78	14
Work full-time	22	7	8	3	30	5
Work full-time attend courses part-time	3	1	3	1	6	1
	291	98	245	99	536	98
Return to school	2	1	1	.5	3	1
Other	2	1	1	.5	3	1
No response	1	-	-	-	1	-
	296	100	247	100	543	100

Student Numbers

7.14 Observation of Table 2 reveals that parents feel the attainment of a tertiary qualification is central to continuing studies beyond the Higher School Certificate.

TABLE 2 : Parent Preferences for Type of Further Studies by Sixth Form Students in the Mitchell, Lachlan and Macquarie Regions in 1967.

Type of Further Studies	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Prefer university, but main aim is to gain a tertiary qualification	132	45	93	38	225	42
No specific institutional preference, but main aim is a tertiary qualification	77	26	81	33	158	29
University ONLY	34	11	12	5	46	8
Non-tertiary studies, e.g. non-diploma technical or business college course	21	7	6	2	27	5
General tertiary studies in a recognized institution : not primarily directed toward a specific vocation	13	4	15	6	28	5
Other	2	1	27	11	29	5
No response	17	6	13	5	30	6
Totals	296	100	247	100	543	100

7.15 The preference for university studies can be seen in the above table and while 42 per cent of parents would prefer their children to attend university, only 8 per cent consider university education essential.

7.16 As a consequence of questions posed to us during our country visits we asked parents whether they would prefer first year attendance at a university or a regional college offering basic courses. Recognition of these courses by universities and possible entrance to the universities with some advanced standing as opposed to full attendance at a university appealed to parents and 39 per cent of the 267 parents whose children planned to undertake degree courses would prefer first year attendance at the country college.

7.17 Further evidence of this attitude toward tertiary education in country areas was noted when parents stated their preference for attendance by their children at a city college or a country college. Provided both institutions offered the courses desired by the children, 72 per cent of parents preferred the country college, 9 per cent preferred a college located in the metropolitan area and a similar percentage had no particular preference. This further highlights the written and verbal emphasis given to the need for a country college in assisting the policy of decentralization.

7.18 Lack of availability of courses in the country led 41 parents to say they would very likely move to the metropolitan area so that their children, not necessarily now in the sixth form, might live at home while undertaking advanced studies. For the same reason, approximately double this number indicated it was possible they would move to the city.

7.19 Deeply concerned as we have been for the provision of opportunities for individuals, we would emphasize the importance of the role of the college in the development of the country regions. One effect of the type of college which we propose should be to stabilize population and even to attract population from the metropolitan areas, and this could be most significant in relation to the groups of people who generally place greatest value on higher education.

BACKGROUND FEATURES OF THE AREA

7.20 As stated earlier when asked to consider the proposal to establish a college of advanced education for the Mitchell, Lachlan and Macquarie regions, we had little information at our disposal. We are indebted to our two research assistants for a considerable amount of detailed information which is appended to this report. Several items recorded in the appendices were of great importance and because these influenced us in arriving at some of our decisions we thought there should be some comment in the body of the report.

Population and Communications

7.21 The first is that the total population of the three regions was 248,903 in 1966. This was 1,712 fewer than when the 1961 census was taken. In 1961, the population was slightly in excess of that of 1954, but the decrease involved is relatively so small that the population might be described as static over the last twelve years. There was some evidence that irrigation development might lead to population increase in some parts but unless something totally unexpected develops, we considered it reasonable to assume a stable population.

7.22 There has been some change in the distribution of population; most of the larger towns have been increasing in size while the rural and village population has been declining.

7.23 Within the three regions there are six towns of considerable size, namely : Orange (21,000), Bathurst (17,220), Dubbo (15,568), Lithgow (12,813), Parkes (8,431) and Forbes (7,370). Because the last two towns are only some twenty miles apart they might be regarded as one centre for purposes of our discussion.

7.24 All the principal towns in the regions are connected by good roads. The climate is such that, although winters are cold, transport is rarely disrupted by snow, and the rainfall also is rarely sufficient to prevent travel. In such circumstances, it is possible to travel in a car some 35 to 40 miles in an hour without exceeding reasonable speeds.

7.25 Most of the towns are on railway lines and all of these pass through Bathurst. This is a material point for students in residence as it is possible to travel cheaply when returning home at weekends or at the end of term. Railways, however, are not always of much assistance for daily commuting in country districts. Train timetables are determined in relation to arrival and departure from Sydney and convenience for students travelling to a country town is fortuitous.

7.26 The heaviest population is in the eastern sector of the three regions, and Orange, Bathurst and Lithgow have a combined population of 51, 033 persons. It is possible to reach Bathurst from either Orange or Lithgow in about an hour's travel by motor car.

7.27 In the western sector there are the three towns of Narromine, Dubbo and Wellington which are similarly situated but have a combined population of only 23, 862. If Gilgandra, which is forty miles from Dubbo is included, the population totals 26, 267. Again the central town is some one hour's travel from the other two.

7.28 In the southern sector of the regions, Parkes and Forbes total 15, 801 people while Cowra, which is in the Lachlan region, has a population of 7, 082 and is forty-two miles from Forbes. This would give a combined total of 22, 883 people.

7.29 While the concentration of population within town boundaries has some importance when considering transport of students, this could not be the only consideration. If it is accepted as a working hypothesis that fifty miles is the limit that students might be asked to travel each day to a college, the following figures are significant :

TABLE 3 : Population within radius of 50 road miles

Area	Population within 50 road miles
Bathurst	78, 494
Orange	64, 348
Parkes	35, 492
Dubbo	40, 836

Employment

7.30 In 1961, some 30,730 people in the regions of Mitchell, Lachlan and Macquarie were engaged in primary production and of these 29,000 were engaged in mixed farming or grazing. The three regions are regarded as safe districts for farming and, except on the western edge, further subdivision on a large scale is unlikely. There are two exceptions to this, the valley of the Lachlan near Forbes and the valley of the Macquarie near Dubbo and Wellington. This is due to the development of irrigation farming, but the maximum increase in population likely to follow this development would have little effect on the overall situation. Most of the farms are worked and managed as family units and, therefore, employment opportunities for others at managerial or professional level are somewhat restricted. There is apparently some development in this direction as a number of properties have passed into the hands of owners living in the metropolitan area.

7.31 We were informed that there is an urgent need for a training course of about one year for boys leaving school to work on their father's property. Although the course proposed scarcely comes within the scope of a college of advanced education we thought the problem needed some comment and we have more to say about this later.

7.32 The main forms of secondary industry within the towns in the area are light industries. The total number of people employed in various forms of secondary industry is as hereunder :

TABLE 4 : Numbers employed in secondary industry in the Regions (1)

Industry	Number Employed
Food Processing	1,640
Manufacturing	4,355
Steel Fabrications, etc.	140
Clothing and Textiles	845
Electricity Production and Supply	1,007

7.33 While there would appear to be prospects of some further small industries being established in the area, these would not provide much additional employment for people holding diplomas of various kinds.

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(1) See appendix C, page 99, for details.

7.34 In relation to tertiary industry the relevant figures for the combined regions are :

TABLE 5 : Numbers employed in tertiary industry in the Regions (1)

Industry	Number Employed
Building	8,430
Transport	5,250
Commerce	13,304
Community and Business Services	8,169
Amusements	5,794
Others	8,927
Total	49,874

7.35 There are no large organizations seeking professional workers in large numbers. The only organization which was really interested in training boys to be employed in its own works was Email in Orange. All were inclined to lament the fact that it was difficult to entice professional men away from the city and suggested that local training should be instituted; but most agreed that it would be difficult, on the basis of local demand, to obtain groups of sufficient size to warrant the establishment of courses.

7.36 In appendix C to this report our Research Assistant, Mr. Terry, has indicated his conclusions after a detailed study of the needs of employers in the regions. It becomes clear that, while government departments, the various statutory corporations, banks, insurance offices and the larger industrial organizations recruit regularly in the regions, employment involves movement over the State or even Australia.

7.37 While each of the above organizations maintains units of considerable size in the area, with resulting managerial positions of considerable status, these do not usually reach the level of city units in size and importance. In the main they are servicing units and important policy matters are decided elsewhere.

7.38 In relation to our problems this has two consequences. The first is that any courses proposed must fit into the pattern of state or national training of the institutions concerned and the second is that the employees tend to be in younger age groups and, therefore, more interested in securing qualifications. It also means that there is a considerable turnover of staff and a constant influx of young people.

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(1) See appendix C, page 102, for details.

7.39 In the three regions, at present, the wealth produced is mainly related to farming and the towns depend very largely on providing the services necessary to keep farms in production. It is an area where there is little poverty and where parents have tended to accept as inevitable that their children will have to leave home to secure career employment. While they are prepared to accept this, they would like their children to spend at least part of their training period near their homes.

7.40 The oustanding feature about the whole area is stability. There has been growth in certain sections but overall this has been slight and there are no rosy prospects for expansion in the future but, on the other hand, there are even fewer prospects of material reduction in numbers.

Students Available

7.41 Estimation of student potential in the regions being discussed is fraught with the usual difficulty but there are available some facts which permit certain projections to be made.

7.42 In 1962, the total enrolment of the State secondary schools in the area was 3,830. Subsequently there was a slight fall in this figure but by 1966 enrolments had reached 3,930 in first form at the end of first term. This was followed in 1967 by a rise of 52 to 3,982.

7.43 Comparison of figures for 1966 and 1967 in non-State secondary schools that presented candidates for the Leaving Certificate Examination in 1965 (1) shows a decrease in first form enrolments of 69, from 979 to 910. (2) This loss is understandable, for most of these schools are residential and the introduction of a sixth form in 1967 (174 students) together with a fifth form growth from 204 to 233 and a fourth form gain of 94 on last year's 634, shows there is less space available for incoming students. This loss may have meant a gain in State school enrolments or it may have meant a loss of students to schools outside the regions.

7.44 The introduction of the 6-year secondary school course in 1962 has resulted in noticeable changes in the pattern of enrolment beyond third form. Table 6 shows the growth in numbers and relative percentage increase since 1963 :

TABLE 6 : Fourth Form Enrolments for Years 1963-1967 inclusive by Type of School, Number and Yearly Percentage Growth.

	1963	1964	1965	1966	1967
State	885	942	1,458	1,660	1,774
Non-State	388	481	686	679	728
Totals	1,273	1,423	2,144	2,339	2,502
Number Increase		150	721	195	163
Percentage Increase		11.8	50.7	9.1	7.0

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(1) 1967 figures were not available for one school so the 1966 figures were employed.

(2) 1966 figures are from August Age-Grade distributions, Department of Education, N.S.W. 1967 figures are from direct communication with schools (May, 1967).

No doubt, part of this increase is due to the desire to obtain the basic secondary school qualification but it is also reasonable to presume it reflects increased community interest in education.

7.45 There has also been steady improvement in the retention power of schools. 4,647 students entered secondary schools in the regions in 1958 and of these 826 (1) (or 17.8 per cent) continued to fifth year. (2) Four years later the first year figures had increased by 197 only but the fifth year figure increased by 424. The percentage of students entering fifth year had risen to 25.8 per cent (3) which represents some 1,250 (4) boys and girls.

7.46 At the end of first term in 1967, there were 709 sixth form students attending schools in the three regions. From this figure and from student questionnaire data, maximum and minimum potential enrolments have been estimated.

7.47 Assuming that the Leaving Certificate and the Higher School Certificate are similar with respect to completion of secondary schooling, that the pass rate at the end of sixth form is similar to that at the 1965 Leaving Certificate (82 per cent), some 590 students will be available for entry to tertiary education institutions from the current sixth form. Allowing for comparable attrition during the senior years, 650 of the current 928 in fifth form would be available in 1969.

7.48 From the group of 590, some are interested only in degree courses, some state they have no interest in further education, others are interested but desire to work full-time, while yet still others plan to continue their studies but not at diploma level. Assuming that financial limitations will not preclude commencement of tertiary studies and that questionnaire respondents are representative of non-respondents, we estimate a maximum tertiary student potential of 480 from the three regions.

7.49 Evidence from previous years and current developments suggest a minimum of 90 from the study population will be admitted to the teacher training programme at Bathurst in 1968.

7.50 Of the 480 possible students, it can be assumed that 90 will enter the college for teacher training. This leaves a maximum pool of 390 people who may also enrol. Data from the 1965 group, aspirations of the current sixth form students and the desire to commence studies in the country if suitable courses are available, together with consideration of the availability of scholarships and matriculation requirements, incline us to the view that approximately 100 of this remaining group would enrol at the proposed college giving a total intake of 190 from the area itself. In addition, others may be attracted from outside the area and there would certainly be about 100 other teacher training students. The total intake might, therefore, reach 300.

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(1) N.S.W. Department of Education, May Term Returns for State Schools; August Age/Grade Returns for non-State Schools.

(2) All numbers for fifth year include repeat students.

(3) Composite figure of 23.4 per cent for State schools and 32.0 per cent for non-State schools.

(4) 1,227 Leaving Certificate candidates in 1965.

7.51 Age/Group data were not available from the 1966 census but it would appear that with the population in the area remaining relatively static any additional potential from the school population of the area will have to be derived from continued increases in the holding power of schools.

7.52 Attributes of the college that may make it personally attractive to secondary school students are presented in appendix H which is a summary of comments made and questions raised by them and their parents in the various questionnaires.

7.53 Further estimates of numbers of persons who might be interested in tertiary education were furnished by employers in the regions and are reported in appendix C. Probably interest by employees will be in direct proportion to the availability of correspondence and extension services.

7.54 Having reviewed the information provided by our research assistants and the evidence submitted by our witnesses, we are of the opinion that provided the teachers college entrants are included, there is a demand in the Mitchell, Lachlan and Macquarie Regions for types of advanced education based on the principles we have set out in section 5, sufficient to justify the establishment of a college of advanced education. We consider that this college should be established at Bathurst and in section 14 we elaborate our reasons for preferring this location to others in the regions.

7.55 Because only a limited number of potential students for the college can travel daily we consider that, from its commencement, the college should make provision for students to reside on the campus.

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8. EDUCATIONAL PROGRAMME FOR A COLLEGE OF ADVANCED EDUCATION

8.1 It would be improper and unwise for us to attempt to prescribe in detail the educational programme for a college of advanced education. The planning of the programme must be a major responsibility of the governing council and staff of the college and we do not believe that we should assume that responsibility. It is also clear that the foundation of a college might be expected to increase local demand for higher education and modify the estimates which we have been able to make. Nevertheless, it is only through a description of the types of courses we think appropriate to a college that we are able to convey any conception we have formed of the nature of a college suited to the needs of the region. For this reason we have thought it necessary to say something about a possible educational programme.

Specialized or Multi-purpose College

8.2 The pattern of higher educational services developing in this State, outside universities, is one of specialist institutions. Teacher education is the sole function of the teachers colleges; agricultural education of agricultural colleges; and engineering and applied science are tending either to have their own college or to have a separate establishment within a technical college.

8.3 Whatever the advantage of this pattern may be in the high-population areas, it is clear that an attempt to extend such a pattern to country areas would involve great expense and would produce small and inadequate student concentration and isolated staffs. Educational facilities such as adequate libraries, specialized laboratories, and a well-balanced staff, as well as provision for physical and cultural activities, depend on there being a considerable concentration of the student population. Much is to be gained also from the exchange of ideas and participation in joint activities by students working in different fields of study.

8.4 We, therefore, conclude that the college of advanced education should be a multi-functional college, encompassing a range of specializations, and recognized as the centre for higher education in the region which it is designed to serve.

8.5 In particular, we would not expect to find a separate teachers college or agricultural college or technical college offering diploma level courses, within the region served by a college of advanced education. This does not mean that such institutions would be non-existent. We realize that there are courses of instruction necessary at what is known as certificate level which will still require technical colleges and agricultural colleges. While we agree with what appears to be a growing belief that tertiary educational institutions should be largely concerned with one level of instruction, we would hope that such a policy would not be applied rigidly in the country districts.

8.6 In our deliberations we have been mindful of all that has been mentioned above and we approached the problem of what might be appropriate courses in the following manner.

Diplomas in Existence

8.7 First, we considered those diploma courses already in existence and found these to be wholly or principally vocational in character. This usually involved syllabuses with content somewhat similar to that used by a university in training professional people. There is a number of occupations in New South Wales where a diploma is the minimum qualification either for registration or for professional recognition. The effect of this is to restrain institutes and colleges from making radical changes in syllabuses.

8.8 The availability of students has also to be seen against the present background in relation to universities. The members of the Martin Committee considered that there were students who could reach the desired standard for professional qualifications but who found this very difficult, if not impossible, at a university. We do not propose to discuss how this is to be accomplished but it is assumed that some students who would be potential failures in a university could succeed in an atmosphere somewhat different from that of a university. There does not appear to be any selection technique to enable university or college potential to be accurately assessed but, for some time at least, the colleges will be pressed to take students who fail at a university or who are unable to obtain enrolment.

New Courses

8.9 Secondly, we looked at the possibility of establishing courses which do not exist at present and for which it is claimed there is a need. Such a course is one for rural engineers. The proposal is to provide a course in general engineering to people who already have diploma qualifications in agriculture. Another proposal was a course in farm management for diplomates in agriculture. In these cases what is proposed is a course in an entirely new field.

8.10 In addition, there is the problem of providing diploma courses where degree courses already exist. In engineering and architecture there appears to be a definite place for both degree and diploma qualifications. This is something that is accepted by educationists, employers and workers. The same could be true of other fields. It is claimed, for example, that not all social workers should be trained at degree level, but a diploma course is no longer available in New South Wales. The Martin Committee commented on the desirability for consideration of new diploma courses.

8.11 In these circumstances, the development of new diploma courses could be an appropriate activity for a college of advanced education. We have refrained from making any specific recommendations in this direction as we consider it would be more appropriate for the council of an established college to make its own determinations.

Non-vocational Courses

8.12 Thirdly, we thought there should be a place in a college of advanced education for courses which have no specific vocational bias. These would aim to increase the general education of the student.

8.13 Some courses, while concerned with general and basic education, rather than vocational training, would have somewhat enhanced value to the student if they gave him some advanced standing when embarking on the more specific training for a selected vocation.

8.14 As a preliminary training for quite a number of occupations a basic 2-year diploma course would have a great deal of value provided this would give the students some advanced standing when later being trained in a work situation. The recognition of this principle poses several industrial issues and professional bodies would have to agree to accept the principle. Such a proposal, however, could mean that students could spend an additional year or even two years in their home environment before proceeding elsewhere to obtain technical or professional training.

8.15 The need for less rigidity in tertiary education was commented on by the Martin Committee in its original investigation and it is to be hoped that when colleges of advanced education become established for various purposes in Australia, there will be a more tolerant view taken about students who wish to transfer from college to college, either to complete basic courses or to secure higher qualifications.

Special Courses

8.16 Lastly, we thought there should be a place in a college of advanced education for a student who wished to study in some depth in a somewhat narrow field. This might be to secure some particular and specialized knowledge or merely because of an interest in a subject. There was a time when a student could attend an Australian university and study one subject without any thought of ultimately securing a degree. Pressure of numbers has made this no longer possible. It may be that colleges of advanced education could reintroduce this practice. In such circumstances, it might be possible for a business executive to study an eastern language at something near university level, for an engineer to take a course is psychology, or for a school teacher to learn something about public administration without assaying the completion of a full diploma.

Proposals for a College Programme

8.17 Earlier in this report we devoted some time to the consideration of diploma courses already in existence and which of these it might be appropriate to offer in a college of advanced education in the Central West of New South Wales. Secondly, we gave consideration to the information available to us from our research assistants' reports. Thirdly, we discussed new courses, some with a vocational bias and some aimed at increasing and developing the student's general education.

8.18 The importance of the research information obtained is that, although it started with the assumption that the programme of a college should reflect the needs of the area and its people, it became clear that many students attracted to the college would find it necessary to seek work outside the region. While the college might assist in making the region self-contained in relation to educational services this would be on the basis that many successful students would migrate elsewhere to secure employment.

8.19 With this assumption clearly in mind and in the light of the general principles we have enunciated, the formal courses might be drawn from areas of study such as those listed below. The support forthcoming would depend on a variety of circumstances.

(a) General studies - Courses in the humanities, social sciences and natural sciences. A full programme of subjects in these areas might be taken to qualify for a diploma or they might be associated with other subjects to prepare for specific vocations.

(b) Engineering and applied science - These might include the courses now conducted under the supervision of the Institute of Technology and others with a special emphasis on rural problems including a course for "rural engineers". We have some doubts about the advisability of attempting to train engineers other than "rural engineers" and possibly civil engineers with the minimum requirements for local government employment.

(c) Administrative and commercial studies - Preparation for administrative work in government departments, local government, business and industry, as well as the more specialized study of economics, accountancy and secretarial duties.

(d) Teacher education - Courses designed for the preparation and in-service training of teachers for primary schools and junior secondary schools.

(e) Rural studies - Courses in agriculture and animal husbandry would involve extensive provision of equipment and facilities which, by government policy, now appears to be regarded as the province of agricultural colleges. Except for this proviso there would be nothing inappropriate in including courses in this field in a college of advanced education. Courses involving the study of agricultural economics and the managerial side of farming could be included without extensive equipment.

(f) Paramedical studies - Courses in nursing and such specialized fields as physiotherapy, occupational therapy, radiography, speech therapy, medical technology, and dental nursing could be given in a college of advanced education but the size of the hospitals available would limit the facilities available for practical training. It might be a more acceptable approach to obtain the basic theoretical knowledge in such a college and so reduce the time which would later have to be spent in hospitals possibly in the metropolitan area.

(g) Communications - Journalism, radio and television production, script writing. There has been little attention to this work at tertiary education level in New South Wales and probably the State could, with profit, have one college providing the necessary courses.

(h) Librarianship - There are already well-established courses at university level on the one hand and certificate level on the other. Development of a diploma course might be difficult; in spite of this, for much library work, a diploma would be appropriate.

(i) Architecture and building - Architecture, architectural draughting, building construction, survey draughting, and town planning. While such a course might be given in a college of advanced education in the country, student support so far from Sydney might be difficult to obtain.

(j) Electronic data processing - Computation, computer programming, information processing. In view of the increasing use of computers such courses could receive considerable support. We are informed that such courses do not necessarily involve expensive equipment on the spot, as machines located some distance away may be used.

(k) Home science and nutrition - Courses in the domestic arts; infant and child care; dietetics and nutrition; catering and institutional management. At present the courses given in technical colleges are at a much lower level but there is some pressure to provide courses more approaching diploma standard. A large percentage of students graduating from such courses would enter government employ so prospective student support could be ascertained.

(l) Social work - Including courses for the preparation of recreation and youth leaders; rehabilitation officers; prison officers; child welfare officers; social workers. The training of officers for this type of work is developing and the need for training at degree, diploma and certificate level is recognized.

(m) Art and music - Courses in the creative arts, including painting, sculpture, interior decorations and music.

(n) Law - Tutorial courses to assist students proceeding to the Barristers Admission Board or Solicitors Admission Board Examinations and possibly specialist courses in industrial or commercial law.

8.20 What has been stated above provides a very wide range of possible subjects and courses. Some obviously would be difficult to establish because of small numbers of students likely to be attracted or because expensive equipment and highly specialized staff are needed but, in all cases, there have been requests for some action and in most cases there is evidence of increasing demands.

8.21 If colleges of advanced education are to be established in country areas they must be dispersed throughout the State. There should be some diversity among the colleges and each individual college could well become the recognized State centre for a course in which the number of students offering is small.

8.22 Our survey of the interests of potential students and of employment opportunities in the three regions leads us to suggest that a college of advanced education at Bathurst should work towards offering courses leading to diplomas in the following :

- Advanced Nursing
- Agricultural Economics
- Civil Engineering (for local government purposes)
- Commerce
- Laboratory Techniques
- Law
- Management
- Public Administration
- "Rural Engineering"
- Science (at the level and of the type now available in Diploma of Science courses)
- Teaching.

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9. THE BASIC DIPLOMA

9.1 The number of people following studies that are cultural rather than vocational in evening colleges and technical colleges would lead one to assume that there is an increasing desire on the part of many to improve their education. There may be a variety of reasons for this but they are not associated with obtaining qualifications which would enhance employment opportunities or increase earning power. Possibly the number desiring diploma courses involving some two years' full-time study with a cultural rather than a vocational aim would be limited but, if the numbers seeking cultural rather than vocational education in less formal studies is any indication, the demand appears to be growing. This desire for further education is associated with a wide variety of subjects from eastern languages to psychology and from physical sciences to music. The range of subjects likely to be in demand is so wide that one college of the size contemplated could not cover the whole range. It is our opinion that if a college of advanced education is established in the Central West of New South Wales it should be the forerunner of others and this would allow some specialization of courses.

9.2 When the proposal to establish colleges of advanced education was first mooted and on occasions since, a diploma in liberal arts has been suggested as a possible course of study capable of attracting students.

9.3 In this connection it is worthy of note that faculties of arts, economics and science exist in all the universities and university colleges in New South Wales. These faculties are interested in courses which are not closely concerned with training for particular professions, and students aspiring to degrees in these faculties are able to follow courses providing a wide choice of subjects. It is also worthy of note that, although quotas for entrants are now a feature of universities in New South Wales it is usually possible for a matriculated student to achieve enrolment in the faculties mentioned. This could have a material effect on the numbers and types of students who desired to follow a 2-year course, or a longer one, that was aimed at general education rather than technical knowledge. It could mean that students interested in cultural education rather than vocational would seek to enrol in a university rather than a college of advanced education.

9.4 Discussion of a diploma in liberal arts or humanities is of fairly recent origina and, as yet, there are no clear ideas on what might be the form and content of such a diploma. It could be that, just as there appears to be a definite place for a diploma in training engineers, there is also a place for a diploma in general education. The numbers likely to be interested in such a course would be difficult to estimate because it would be a completely new venture, but elements of such a course could be used for other purposes.

General Education and Employment

9.5 There are now a number of occupations where attempts are being made to raise the general education of those employed without involving them too much with the technical aspects of training. Teaching is the best example of this and advocates of increased training for teachers, particularly at secondary level, emphasize the need for increased study of history, mathematics, English and other subjects. This is to ensure that the teacher has an adequate knowledge in the fields in which he gives instruction. Considerable encouragement is given to teachers to improve their general education on a part-time basis and the numbers attending university courses each year run to many hundreds. A course of shorter duration than a part-time degree might attract students particularly if they could be assured that this was directed to their special needs and would be associated with improved remuneration and promotion prospects.

9.6 Authorities involved in the training of nurses also are concerned about improving the education at least of those nurses who will occupy executive positions and a course which involved general education with some relation to management and personnel practices would probably receive support.

9.7 There is little doubt that an appropriate course involving study of the humanities with some more specialized subjects could satisfy most, or all, of the requirements for the higher grade examinations for administrative and clerical officers in the State Public Service. The Public Service Board of New South Wales has already commenced to recruit clerical officers at graduate level and could be presumed to accept diplomates on conditions in relation to salaries and progression that would attract students.

9.8 Banks are large organizations which traditionally have recruited a high percentage of their officers at the Intermediate Certificate (now the School Certificate) level and have provided them with some in-service training. Banks are now facing the situation that a number of other organizations are facing, namely, that the more intelligent children are tending to stay longer at school and the quality of those recruited before the conclusion of a full secondary school course is not up to the standard of some decades previously. This has meant that banks, along with a number of other organizations employing large clerical staffs, have been experiencing difficulty in maintaining a supply of people capable of later providing a satisfactory service at junior managerial and executive level. Although as yet there has been no official indication of a changed policy, a number of senior bank officers have indicated privately that banks generally would not be adverse to recruiting annually a number of young men who had acquired additional education qualifications before employment, provided these qualifications were regarded as appropriate, such as courses orientated towards economics, accountancy or agricultural economics. Several of the larger banks already have in-service training courses which are designed mainly to train officers in technical matters at a point when they are about to be promoted. In addition to these, are courses conducted by the Bankers Institute. These courses are somewhat below the standard which would be acceptable for a diploma but could be converted without a great deal of difficulty. Following the recent changes in the training of accountants, there may be increased interest in improving the qualifications of bank officers.

9.9 The extreme shortage of labour that was a feature of the post-war years is passing and employers looking for recruits for career occupations are now able to be more selective. One effect of this in the future could very easily be that they would look for people with more maturity who had occupied their time with improving their education. While many of the big employing organizations would probably welcome more mature and better educated recruits, provided the cost in additional salary was not too great, they would probably be looking for people with what they considered appropriate education, namely, that related to scientific, technical and social studies rather than the humanities.

9.10 It has been impossible in the time available to us to investigate fully the possibilities of employers recognizing a diploma in the humanities, social sciences, or biological science, but the growing number of students from the administrative side of industry who are seeking qualifications at universities would indicate support for an appropriate course at a college of advanced education provided it gave them some additional status in relation to their employment. Much, of course, would depend on the attitude of employers such as banking corporations. We are assured that the Public Service Board of New South Wales would give a lead in this and give some recognition to an appropriate diploma of a college of advanced education. This would involve, at least, a higher commencing salary.

The Basic Diploma

9.11 We would suggest, therefore, that there be, in the proposed college, a basic course not directly concerned with vocational training. It is not our function to detail the conditions under which such a diploma might be awarded; this would be one of the first duties of the interim college council.

9.12 We would expect that provision would be made for a student to arrange his programme of studies to suit his needs. One might pursue a series of courses designed merely to improve his education in the manner he desired and another might pursue a course designed principally to give him basic knowledge to assist him in his chosen vocation. Our feeling is that, while reasonable academic standards must be maintained, the student's choice of studies should, as far as possible, not be restricted.

9.13 The standard to be reached in such subjects as physics, chemistry and biology would need some careful consideration. They would have to be of sufficient depth to allow an understanding of a later application to work conditions. They would not be a basis from which higher degrees or research occupations would develop but if such subjects are later to be used to obtain advanced standing in universities and institutes the acceptance of the college standards by universities and institutes could be of importance.

9.14 We propose that the diploma should cover two years of study. The knowledge so obtained could provide the background education for such occupations as teaching, social work, clerical work, administration, nursing and paramedical occupations though obviously all students would not take the same subjects. To this basic training would have to be added technical training but we would hope that there would be recognition of the basic training by way of salary progression and reduced training periods. Within the college itself some technical training might be provided but this would probably have to wait until basic courses were well-established. This would probably necessitate an extension of study beyond the proposed two years.

9.15 The temptation in relation to the courses we have suggested might be to make them too superficial. This is always the temptation in broadly based studies. The maintenance of a correct balance and standard would be the responsibility of the principal and the staff.

9.16 The work of securing recognition for the diploma granted in academic, industrial and commercial areas would devolve largely on the first council of the college and the senior officers of the college.

9.17 If our proposal of a basic diploma course providing the student with a wide choice of studies is accepted, the work of a college of advanced education could be made to fit into the pattern of advanced education in the State. It could mean that within the college there would be three main areas of study, namely :

- humanities,
- sciences (basic or applied),
- vocational studies.

9.18 We have already noted that a college with its limited enrolments would have difficulty in giving a wide range of subjects but we would emphasize that a wide coverage is desirable. We would hope, however that this would not preclude a college from developing a special interest in some disciplines and so become the main teaching centre at diploma level in the State for that discipline.

9.19 If a college such as we propose is to succeed, it is obvious that employers and professional bodies must accept the courses and give recognition to successful students. We would hope, however, that a college would have a point of view of its own and not become merely the servant of employers and professional organizations.

University Recognition

9.20 The question of university recognition has also been raised. The Martin Committee initially stated that the colleges should earn their own place in public esteem by ensuring there was appropriate instruction at a sufficiently high standard. We agree with this and do not consider that those engaged in establishing courses should be influenced too much by the need for university recognition on the one hand, and that of professional bodies on the other. Neither of these can be entirely overlooked and preliminary talks with university authorities would suggest that recognition of college courses could be only on the basis of the standard attained in individual subjects. There could be no recognition of the "totality" of the course.

9.21 Our investigations appear to make it clear that there is a need for the types of courses we have suggested. How far these courses would take a student towards a degree is possibly of secondary consideration. Once established, the college could develop post-diplomas to meet the needs of students who wish to continue their studies.

9.22 The advance of knowledge and the need for specialization has led to many more students taking post-graduate courses and higher degrees. This means that research and the supervision of the work of post-graduate students is of evergrowing importance in the total of work performed by universities. The prestige of a university depends in no small measure on the research in which it is engaged and the quality of student seeking higher degrees. The work involved is of great importance also in attracting and holding staff.

9.23 It is not expected that post-diploma work in a college of advanced education would ever reach the proportions of post-degree work at a university, but if it were entirely neglected it could lead to lack of progress in developing courses or even stagnation. For this reason early attention should be given to some post-diploma work and a definite post-diploma qualification should be established.

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10. ADMISSION STANDARDS

10.1 Admission standards will constitute something of a problem to an incoming council. Success at a matriculation examination at a university purports to do two things. First, it purports to ensure that the successful candidate has the necessary general education to embark on a university course and, secondly, that he has the necessary knowledge and skill in specific subjects to enable him to continue to study in these subjects in a university. For example, a pass in mathematics is obvious necessary for an engineering student.

10.2 In addition to the above, the Commonwealth Government has stated that subsidy will not be made available for courses unless there is an educational prerequisite of "the completion of a full secondary education". In New South Wales this will mean some further definition because, under the new secondary system, candidates may receive the Higher School Certificate for a pass in only one subject at the examination.

10.3 In 1966, there was considerable publicity in New South Wales about university matriculation examinations and a common pattern of requirements was not adopted. The situation was further complicated because admission to universities is frequently competitive and rules for assessing the relative merit of passes have to be devised. If entrance to colleges of advanced education becomes competitive similar rules will have to be devised for these institutions also.

10.4 In relation to the Institute of Technology, the only institute as yet enrolling students, somewhat different rules apply. There is a definite prescription of the standard of pass necessary at the entrance examination and this is a little less stringent than the university requirements. In addition to this, entrance may be obtained in another way. A student who has completed a certificate course at a technical college may be enrolled provisionally in a diploma course and, if successful in his examinations, will eventually be awarded a diploma. In a university a degree is not usually awarded unless the conditions of matriculation have been met.

10.5 In the light of the above it is obvious that considerable thought is necessary to resolve the difficulties of an entrance examination. It may be that, just as it is hoped there will be a diversity of courses in colleges, there will be some diversity of entrance requirements.

10.6 It would appear that the Commonwealth Government does not intend to interpret "completion of a full secondary education" literally. Already subsidies allowed to such organizations as the College of Nursing, would suggest that age, work experience and vocational training may, on occasions, be a substitute for success at school.

10.7 If colleges of advanced education are to occupy a place of some honour in tertiary education they must ensure that their entrance standards provide a reasonable screen but, we are of the opinion that mature students should not always be required to return to school merely to satisfy entrance requirements. There should be some flexibility in the system. We hope also that by the time colleges of advanced education are established there will be a much clearer understanding of what passes mean at the Higher School Certificate Examination. This should remove some of the present difficulties.

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11. FULL-TIME AND PART-TIME INSTRUCTION

11.1 We have stated already on several occasions that there is no centre in New South Wales, outside Sydney, Newcastle and Wollongong, which could maintain a college of advanced education without assistance from other centres. This means that the proposed college would have to provide some residential accommodation. The Martin Committee stated that it considered a college should have a student population approaching 1,500 in five years. (1) If this is to be an objective it would be necessary to think of, at least, 1,000 students in residence.

11.2 It would seem from the information available that an enrolment as high as 1,500 would be difficult to attain in a country college in New South Wales within five years. In considering the number of students in residence, the place of the teachers college already established with residential facilities has to be taken into account. The proposed college of advanced education should include students from this institution numbering 300-350. An initial target of some 550 to 600 students in residence might, therefore, be nearer to what might be achieved. If the college were established in a centre other than Bathurst, teachers college students would not be available.

Travelling daily to College

11.3 As stated earlier, students could attend daily from centres as far away as fifty or sixty miles provided transport could be arranged. This was frequently stated by our witnesses. Students attending the college would mostly be older than the minimum age to secure a driver's licence and so could drive their own cars. Students' cars are already a feature of educational institutions everywhere and there should be no dearth of people able and willing to travel daily up to fifty or sixty miles each way. Considerable assistance would be given by confining lectures to four days each week. It is not suggested that the college be open only four days a week, but that students' time-tables be arranged so that they would not be required to travel more than four days a week.

11.4 Primary and secondary education in New South Wales is free to those who attend departmental schools and to maintain this principle large sums of money are spent on transporting children. Tertiary education is subsidized but the student is required to contribute something. Subsidizing students who travel daily would be less expensive than providing facilities for residence.

11.5 One aspect of educational administration in New South Wales that has been somewhat rigid at all levels has been the three term year with long vacations over December and January. This may not be the best pattern for an institution with students travelling daily from other towns.

Part-time Students

11.6 Another feature of training at diploma level in this State is that large numbers of students are engaged in part-time study.

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(1) Martin Report, Vol. 1, pp. 175-6.

There has been a tendency in universities to discourage part-time study but when the diploma was reintroduced in technical colleges, although there has been some modification of the courses to provide some full-time study, a large measure of part-time study has been maintained. It is the stated intention of the Technical Education Department to continue part-time instruction.

11.7 There is, at present, a large number of students who find it necessary to earn a living while studying. This situation will continue and it is our opinion that some new approaches to the problem of part-time study should be devised. There has been considerable talk about developing a part-time study programme known as "block release" but, up to the present, this has not been attempted in a tertiary institution. There is a number of variations of this system that might be tried.

11.8 It is not our function to lay down any fixed rules that might be followed in the organization of the college. This is a matter for more detailed planning than we could give to the problem, but we would suggest that maximum use should be made of the buildings. It is a frequent complaint that full use is not made of many educational buildings in New South Wales.

11.9 It is agreed that students should be encouraged to engage in full-time study either by living in the college or travelling to it each day. Full-time study may be accepted as the best method of study at tertiary level but, while this is the only method used, students are deprived of opportunity to secure qualifications. To provide for those who cannot attend on a full-time basis, it should be possible for some students to combine correspondence courses with limited periods of attendance. This, of course, could present some problems of organization but none appear to us to be insuperable.

Semester Year

11.10 In order to make the maximum use of the buildings and in order to give a flexibility that will meet the special conditions of people living in rural areas, we would suggest that an organization of the academic year on lines such as the following be considered by the Council :

11.11 The year should consist of two semesters each of eighteen weeks and a summer term of nine weeks. This would allow a midyear vacation of two weeks and a midsummer vacation of four weeks with an Easter break of one week. These vacations would enable trade, technical and domestic staff to provide the necessary services while students were in residence and also to carry out necessary maintenance while students were absent. In relation to academic staff, the use of a short summer term could necessitate the employment of part-time staff.

11.12 Our proposal would allow full-time students thirty-six weeks' instruction which is some six or seven weeks more than the normal university instruction and should do something to ease the strain of completing syllabuses. The summer term could be used almost exclusively for students studying on a part-time basis.

11.13 We propose that the semester rather than a year be the basis of curriculum planning and that a typical full-time programme would involve some twenty hours of lectures per week which would be rated as forty semester units. On this basis a subject studied for one hour per week would count as two units. If the short summer term were used for formal courses, a subject studied for one hour per week could count as one unit.

11.14 Under such a system as this, a 2-year diploma course would involve some 160 semester units. Rules governing subjects to be taken and the length of time devoted to them would have to be determined as is the case at a university, but such a scheme as proposed would allow any subject course to be followed for up to four semesters.

11.15 In addition to making full use of the college buildings we feel that the semester organization would have some distinct advantages. It would enable examinations to be taken twice a year and a closer watch might be kept of students having difficulties. This would mean also that students who failed would not necessarily have to repeat a whole year. The nine week summer term could also be used for supplementary instruction. The development of the semester programme would also make it possible for students to spread their courses over a number of years according to their convenience. A student could save enough money to keep him in college for eighteen weeks with the knowledge that this period would enable him to complete some units towards a diploma. In a farming district where there are peak periods for employment this could materially assist some students.

11.16 We would commend this new approach of the division of the academic year into semesters rather than terms. We would also point out that in a city there may be a variety of uses for buildings during vacations but in the country it may be more difficult to ensure that full use is made of expensive buildings, therefore, they should be used as much as possible by students taking courses.

11.17 We would point out that the semester system is only one of several ways of meeting the special conditions associated with a country college. The Council may well consider it more desirable to divide the academic year into three or four equal parts. We would hope, however, that the principles we have stated in our proposal concerning the semester system, with particular reference to the awarding of points and meeting the special needs of students, would be retained.

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12. ADMINISTRATION

12.1 The type of college which we have proposed presents problems with regard to the design of an appropriate administrative structure. There is no existing model to which we can turn since the college itself is a new conception which, while sharing features of similar institutions elsewhere, combines these in a way which is new for this State. We shall attempt to identify the more important factors which need to be considered and then suggest an administrative structure which would seem to be consistent with our general ideas concerning the college.

12.2 When new universities were established outside Sydney, they were formed as subordinate colleges of one of the major universities and were granted autonomy years later. This system has invariably led to administrative tensions. The advantages claimed for this arrangement are : administrative economy and guarantee of acceptable academic standards.

12.3 Within the State system of technical education there is a high degree of centralization with prescribed syllabuses of instruction, common examinations and awards, and detailed control of finance, staffing and building. These controls are exercised by the Technical Education Department assisted, in the major colleges, by an advisory committee which is usually representative but is without executive authority.

12.4 Basically the same system operates in the teachers colleges but principals of individual colleges have had considerable freedom in academic matters under the general supervision of the Department of Education. There have always been regular conferences between the Director-General and college principals. There are no local committees related to the teachers colleges corresponding to the technical education advisory committees but the recent establishing of a Board of Teacher Education has added representatives of universities and teacher organizations to those considering methods of training teachers.

12.5 We have stressed the importance which we attach to the development of strong relations between the college of advanced education and the region which it is designed to serve. From the outset, the college should be sensitive to the interests, needs and aspirations of that region; and we should hope that it would soon become a vital force in promoting the growth of an important area of the State. For these reasons it appears essential that control of the college should be vested in representatives of the Central West with such additional assistance as may be necessary.

12.6 We have noted the recommendations of the Committee of Enquiry into the need for a College of Advanced Education in the Australian Capital Territory, particularly in respect of the autonomy of the proposed college. That Committee reached the unanimous opinion that "the college should be established as a strong and independent corporate body with a status similar to that enjoyed by universities in Australia and the United Kingdom". (1)

12.7 In presenting this report to the Federal Parliament, the Minister (Senator J. G. Gorton) said that the Government would place the college -

> "under the control of a Council autonomous in internal matters but without the power to initiate new courses without the approval of the Government and under the obligation to provide courses if the Government requires them to be provided". (2)

12.8 We agree in principle with theCanberra Committee in relation to autonomy of a college of advanced education. Nevertheless, the administration of tertiary education is now so complex and expensive that the restriction placed on the Canberra College by Senator Gorton seems a reasonable one and to this might be added that the Council should not have the responsibility of fixing salaries for the staff and all staff should have public service rights protecting them in relation to dismissal and discipline.

The Council

12.9 The composition of the Council recommended by the Canberra Committee was as follows :

(a) Two members appointed by the Commonwealth Parliament;

(b) Two members from Commonwealth Departments (Prime Minister's Department; Department of Interior);

(c) Two members appointed by the Australian National University;

(d) One member appointed by the New South Wales Department of Technical Education;

(e) The Principal of the College;

(f) The Principal of the Canberra Technical College;

(g) Two members elected by the academic staff;

(h) One member elected by the students;

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(1) Report of the Committee of Enquiry into the Need for a College of Advanced Education in the Australian Capital Territory, June, 1966, p. 52.

(2) Ministerial Statement to the Senate, 18th October, 1966.

(i) Five members nominated by the Minister to represent the general public;

(j) Up to three members co-opted by the Council. (1)

This gives a Council of twenty members.

12.10 We suggest a smaller council and one in which as few as possible of the councillors will feel they represent particular interests. If our proposals are adopted, one councillor only will be an elected member, namely, the person representing the staff. One of our main concerns was to give people in the area the feeling that the college belonged to them and was not controlled from Sydney. This would mean also that councillors living in the area would not be drawn from one city. We propose that these appointments should be made by the Minister and we discussed various ways in which local government bodies might make suggestions as to suitable persons. All these could present difficulties and possibly the best method would be to rely on the discretion of the Minister's officers to see that suitable people were brought to his attention.

12.11 Therefore, for a college of advanced education in the regions we are investigating we suggest that the governing body should be a council of about fifteen members, appointed by the Minister with full authority and responsibility to develop and control the college and its activities within the limitations discussed below, particularly in relation to the employment of staff and the control of finance.

12.12 We recommend that the membership of the Council be made up as follows :

(a) Seven members appointed by the Minister and resident in the Mitchell, Lachlan and Macquarie regions; at least two from each region.

(b) Two members appointed by the Minister who shall be New South Wales public servants.

(c) One member elected by the teaching staff of the college.

(d) Two members appointed by the Minister who shall be chosen because of their prominence in some field of education.

(e) Two members appointed by the Minister on the recommendation of the other members of the Council.

(f) The Principal of the College (ex officio).

12.13 No specific mention is made of university representation on the council. The college might need to have relations with at least five autonomous universities in the State and representation of them all would be impossible. On the other hand, it will be important that the council be aware of the general principles underlying developments in university education in the State, and this implies some representation on the council. It is suggested that in appointing members under section (d) above, the Minister might endeavour to provide at least one university person who could help the council on such matters.

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(1) Report of the Committee of Enquiry into the Need for a College of Advanced Education in the Australian Capital Territory, June, 1966, pp. 56-7.

12.14 We propose that members of the council should be appointed for a term of four years but should be eligible for re-appointment.

12.15 The council should elect one of its members to be its Chairman. No member of the staff of the college would be eligible for this position.

12.16 The council would have the responsibility of approving new courses, determining the educational prerequisites of students on entering, the duration of courses, the standards of examinations and the diploma to be awarded. It would have some of the functions of the professorial board of a university and some of the academic committee of a university council. In addition to this, it would be a managerial body concerned with all aspects of college life - academic, residential, physical and recreational. The main restrictions on the function of the Council would be its inability to employ or dismiss staff without the Public Service Board concurring and the necessity to submit budget proposals to the Treasury.

12.17 We would suggest, therefore, that to the council of the college should be delegated as many as possible of the functions now delegated to Permanent Heads of Departments. This would ensure that the council becomes the managing body of the college.

12.18 We believe it possible for the Minister to establish the college and appoint a council without the passing of an enabling Act; it may be as well to do this in the first stage. In due course, however, we would like to see the college recognized as "a strong and independent corporate body" and for this purpose an Act of Parliament would be desirable.

Interim Council

12.19 As soon as the decision is made to establish a college an interim council should be appointed by the Minister. The membership of the council might be as follows :

(a) Three members who are citizens of the Mitchell, Lachlan and Macquarie regions.

(b) Three members who are New South Wales public servants.

(c) Two members appointed because of their special experience or ability.

(d) Two members appointed from the staffs of other tertiary academic institutions.

(e) The Principal of the college on his appointment.

Staffing

12.20 In order to give members of staff the degree of security which they require, they must hold their positions in a larger system than the single, new-type college, at least until such time as the college has established itself and demonstrated that it can offer stability of employment and opportunities for promotion.

12.21 As is the case with the staff of the Institute of Technology in New South Wales, and other Institutes, the staff of the college will be public servants and have available to them opportunities for transfer to other colleges of advanced education and similar institutions in this sector of higher education.

12.22 There should be some deviations from the standard practices of recruitment and control exercised by the Public Service Board, even if this requires special legislation. All positions should be open to qualified persons, regardless of whether they are inside or outside the Service so that there is no restriction on the recruitment of the best available people.

12.23 It is our opinion that more than one college of advanced education is necessary in New South Wales to give cover for the whole of the State. If some of the courses we have suggested are established it may be necessary to engage part-time teaching staff. We assume, however, that the majority of the staff of the college would be full-time if the college is to have character and individuality.

The Principal

12.24 As soon as possible the interim council should proceed to secure the appointment of the college principal to be the academic and administrative head of the institution. Upon appointment, the principal would then join the interim council and be expected to play a leading part in the preparation of plans for the college.

12.25 The Principal would be responsible to the council and should have direct access to the Permanent Head of his Department without any intermediate person. He would be consulted when staff is recruited and assist in the selection. To him might be delegated authority to engage and dismiss part-time staff. The Principal would be the key person in the management and development of the college and appointed after advertisement within the Public Service and outside it.

13. AGRICULTURAL EDUCATION

13.1 Earlier in this report we stated that a number of people discussing the problem of advanced education with us had little idea of what is meant by a course at diploma level. Quite a few of the proposals made to us were for courses at a considerably lower level, some of the propose courses were even below the generally accepted certificate standard. The provision of these was not our concern although we did suggest, and hope, that when a college of advanced education is established it will engage in some work of an extension nature. Notwithstanding this, we thought that, in general, courses of this standard might be the concern of technical colleges.

13.2 The position in relation to agriculture, however, is somewhat different. It was noted that there were in the area we were investigating some 31,000 people engaged in various forms of primary production of whom 29,000 were engaged either in agriculture or grazing. Most of the people managing these properties are farmer/owners and concern was expressed at the lack of facilities for providing a suitable form of training for these people. It was stated that many young men were unable to get any agricultural training beyond the little they received in a secondary school.

13.3 The total number of students in Hawkesbury and Wagga Agricultural Colleges is scarcely more than 400 and there is a further 100 students in the Farm Certificate Course at Yanco. This means that post-school training of this type is extremely restrictive. The only additional courses available are in one small private agricultural college and those offered by the Technical Education Department. The latter are concerned mainly with wool classing and with sheep husbandry and farm mechanics courses.

13.4 In addition to this, the Hawkesbury and Wagga Agricultural Colleges are more concerned with the training of "career diplomates", that is, people who earn a living in occupations related to farming. It has been estimated that only about one-third of the boys trained in agricultural colleges become practising farmers.

13.5 The only institution at the present time that is endeavouring to provide the necessary training for the farmer/owner is the college at Yanco.

13.6 In almost every centre we visited we were informed that there was an urgent need for providing more farm certificate courses. It was stated that a young man about to embark on life's work as a farmer desired to gain some ideas about the best methods and some ideas about management but did not want to spend the full three years necessary to obtain a diploma.

13.7 A farm certificate course would scarcely be an appropriate one for a college of advanced education. There is a very high incidence of practical work under staff with very limited academic attainment. In addition, academic studies proceed little beyond the staff of secondary schools. Apart from this, such a course would require some hundreds of acres of land so that students may receive some practical instruction. To obtain cheap land it would be necessary to move some miles out of town and probably have separate residential facilities.

13.8 The urgent need for this type of farmer/owner training was also impressed upon us by the United Farmers and Woolgrowers' Association of N.S.W. who went to a great deal of trouble to present their case.

13.9 Although this is somewhat outside our terms of reference, we were so much impressed by this need that we would suggest that, in addition to a college of advanced education, there should be in the Central West of New South Wales a college giving instruction at farm certificate level. We consider the Government should examine the question of the establishment of such a college and its location.

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14. LOCATION OF THE COLLEGE

14.1 The fourth of our terms of reference was to advise on "the type of college and its location". Elsewhere we have made clear the functions we consider a college of advanced education should perform. We have also indicated that we consider the college to serve the central western area of New South Wales should be the first of several to cover the whole of the country districts of the State. It is our contention that there is enough student potential in the Mitchell, Lachlan and Macquarie Regions to establish a college of advanced education provided there is substantial residential accommodation and some assistance from other parts of the State.

14.2 It is an established principle that any educational institution should be located within a town or city of some dimensions. It is not considered sufficient that a location should be geographically central. Unless community life outside the institution is available, staff is difficult to recruit and hold. Professional staff involved in tertiary education is always difficult to recruit for establishments in country districts and would be almost unprocurable if asked to live in smaller towns. This means that in determining where a college should be located in the Mitchell, Lachlan and Macquarie Regions, only towns or cities of reasonable size should be considered.

14.3 There are six towns in the area that appear large enough to be given some consideration as a possible location of a college and these with their populations are :

Orange	21,000
Bathurst	17,200
Dubbo	15,568
Lithgow	12,813
Parkes	8,431
Forbes	7,370

14.4 Very early we eliminated Lithgow. This town is on the extreme eastern edge of the area and there appeared to be no local desire to have a college. When we visited the town we were informed that Lithgow supported the claims of Bathurst.

14.5 East of Lithgow there are several towns of considerable size which are gathered together in a Local Government area known as the City of the Blue Mountains. Katoomba is the largest of these and they have little affinity with Lithgow because most people in the Blue Mountains area find it convenient to travel to Sydney.

14.6 We are of the opinion that a college of advanced education established in the central western region of New South Wales could not expect a great deal of support from Katoomba and unless Lithgow could receive substantial support from that town it would have little claim against Bathurst or Orange. So, for our purposes, Lithgow may be disregarded.

14.7 Forbes and Parkes might be regarded as one population centre because they are only twenty miles apart and it would be immaterial whether a college was established at the first named or the second. This means that we had four locations to consider, namely, Orange, Bathurst, Dubbo and Forbes/Parkes.

14.8 Of these, the Municipality of Dubbo had the highest rate of increase between 1954 and 1966, Orange the second and Bathurst the third :

TABLE 7 : Population Statistics - 1954-1966

Municipality	1954	1966	Increase
Dubbo	12,009	15,568	3,559
Orange	18,247	21,000	2,753
Bathurst	16,089	17,220	1,131

If population within a radius of fifty miles of the centre is taken as a criterion, Bathurst with 78,494 is ahead of Orange with 64,348. Dubbo has 40,836 and Forbes/Parkes 35,492. On this criterion, Dubbo and Forbes/Parkes would be eliminated.

14.9 Since we are dealing with an institution that depends on students, the total number of people in an area must be given considerable weight.

14.10 During our considerations we made it clear that we thought a college of advanced education anywhere in the Central West of New South Wales would have to reply quite heavily on students in residence. This means that they would be drawn from a very wide area and, in some courses, from the whole State. In addition to this, we considered some effort should be made to transport students daily from adjacent towns and in this connection certain towns and cities have an advantage.

14.11 Lithgow, Bathurst and Orange are connected by a good road system and students from Lithgow and Orange could travel to Bathurst in little more than an hour without excessive speed. This gives Bathurst, in the centre, some advantage over both Orange and Lithgow at the extremes. The total number of people in the three municipalities is 51,033.

14.12 The second group of towns, Wellington, Dubbo and Narromine, provide equally satisfactory conditions of transport if Dubbo becomes the location of the college but, in this case, the number of people in the area is considerably less, namely, 23,546. The third group, Parkes, Forbes and Cowra, with Forbes as the centre, would cover only 22,883 persons.

14.13 These considerations make it clear that the most suitable location for a college is in the eastern sector of the regions.

On the basis of size, Orange might have some little advantage over Bathurst but Bathurst seems to us to be better situated geographically.

14.14 We were told on several occasions that Bathurst is not really a part of the Central West. It was claimed to be too closely associated with Sydney. We had to discount these arguments. Bathurst seems to us to be quite definitely associated with the region and, while it is true, that there is a considerable tie with the metropolis, we consider this to be of some advantage.

14.15 While it was said that students east of Bathurst would not travel west, we were assured that students from Lithgow would do so.

14.16 If a college had to be established on the basis that it was in an area in which there was a strong country sentiment then possibly Dubbo would be the best choice. It is far enough away from the metropolis to be strongly critical of lack of decentralization. This did not seem to us to be a strong enough argument to counter lack of numbers.

14.17 Dubbo suffers from the disadvantage that it is a centre of much the most sparsely populated portion of the region.

14.18 There are several other points that inclined us to consider Bathurst as the most suitable location. Our research has shown that a large number of students attending a college of advanced education will probably be teachers or trainee teachers. We have proposed that there should be integration with the teachers college in keeping with the recommendations of the Martin Committee. While we do not anticipate that a college of advanced education will be in any manner exclusively for the use of teachers or prospective teachers, it is obvious that the two institutions could greatly assist each other. For this reason, the presence of the teachers college at Bathurst would be of great advantage to the establishment of a college of advanced education there.

14.19 In addition to this, the nature of the geography of New South Wales and the history of the State's development, has resulted in all arterial roads to the Central West passing through Bathurst. This gives that city some advantage in the development of any system of transporting students. Also, all railways serving the Central West of New South Wales pass through Bathurst.

14.20 Lastly, there is available in Bathurst some 185 acres of Crown land admirably suited for a college. The location of this land is such that it would be difficult to find anywhere an area more suited for the development of college buildings. In addition to this, the Bathurst City Council has agreed to make available the sum of $200,000 towards the provision of residential accommodation under certain terms which have been conveyed to the Minister.

14.21 The Orange City Council promised to purchase and vest absolutely in a college of advanced education in trust an area of up to 200 acres provided with all services of water, sewerage, electricity and gas but did not suggest any possible sites. In addition, the Council stated that it would extend its present scheme for constructing and renting houses to the staff of the college if it were established in Orange.

14.22 The Commonwealth Government, following on the Martin Report, has already adopted in principle the proposal that the college should be at Bathurst and we see no reason for advocating a change. It is our opinion that the college should be located at Bathurst.

14.23 We would recommend to the Minister that, as soon as practicable, there be established a committee on which the interested government departments and the interim council of the college are represented to control the development of the site at Bathurst as a whole.

----

15. OTHER COLLEGES OF ADVANCED EDUCATION

15.1 On various occasions in this report we have made it clear that if the central western regions of New South Wales have sufficient population to produce enough students to justify the establishment of a college of advanced education, even if the students from within the regions have to be supplemented by students from other parts of New South Wales, this does not mean that we think that the college it is proposed to establish at Bathurst should be unique. If the Central West can support a college of advanced education on the basis that some students in residence may come from other parts of the State then it would seem that other regions could do the same. This, of course, would depend on a number of circumstances related to each area.

15.2 Since it was not our function to consider this matter, we have not tried in any way to suggest how many of these colleges there should be and where they should be placed but we do state that we consider that proposals for colleges could be justified in other parts of the State.

15.3 There also arises the question of the place colleges of advanced education should have in the metropolitan area and in Newcastle and Wollongong. In these regions, universities and other institutions are accessible to students, the universities providing a variety of courses at degree level while the technical colleges provide various diploma courses. In none of these institutions, however, would a course such as as the basic diploma course we have been considering be offered. It might well be that consideration could be given to establishing a basic diploma course in some technical colleges at least in the outer metropolitan area.

15.4 It is well-recognized that one of the problems that has been facing the Department of Technical Education over the last fifteen years has been to provide facilities at trade and certificate level. This has meant that a number of colleges have been established in the metropolitan area and more are contemplated. It could be that when the whole area has been provided with reasonable facilities, one or more of these technical colleges might be allocated either for the exclusive provision of diploma courses or diploma courses should become the major activity in the college.

15.5 This again is somewhat outside our terms of reference and our proposals would naturally be subject to further investigation particularly when the full impact of the development of the Institutes of Technology and Business Studies can be assessed.

----------------

16. ACKNOWLEDGMENT

We would particularly like to place on record our appreciation of the assistance we have received from our two Research Assistants, Dr. D.A. Cross and Mr. C.S. Terry, and from Miss R. Larkin who acted as secretary to the Committee.

(Sgd.) H.F. Heath (Chairman)

(Sgd.) V.F. Gordon

(Sgd.) J.C. Matthews

(Sgd.) L.N. Short

(Sgd.) I.F. Vacchini

(Sgd.) D.J.A. Verco

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REPORT
OF THE COMMITTEE
APPOINTED BY THE MINISTER FOR EDUCATION AND SCIENCE
TO INVESTIGATE THE PROPOSAL TO ESTABLISH A COLLEGE OF ADVANCED EDUCATION AT BATHURST

SYDNEY — JULY 1967

VOLUME 2 — APPENDICES

JC 680 144

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OFFICE OF EDUCATION

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REPORT

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VOLUME 2

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APPENDIX A

CENTRAL N.S.W. COLLEGE OF ADVANCED EDUCATION

COMMITTEE

Chairman :

V.F. Gordon, Esq., LL.B.

Members :

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L.J. Allen, Esq., B.A., B.Ec., Principal, Bathurst Teachers College.
W.J. Aspery, Esq., B.A., Principal, Bathurst High School.
Rev. Canon E. Barker, Th.L., Canon Residentiary, All Saints' Cathedral.
J.C. Bartlett, Esq., B.D.S.
N.M. Clancy, Esq., M.I.A.M.E., A.I.S.M.
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W. Dow, Esq., Editor, The Western Advocate, Bathurst.
J.W. Fordyce, Esq., M.R.S.H., Principal, Bathurst Technical College.
Miss Margaret Glover, B.A., M.A.C.E., Principal, Marsden School.
K.J. Hiscox, Esq.
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A. Howard, Esq.
P. Jones, Esq., B.A., MA.C.E.
V. Rev. Fr. J. Keady, C.M., B.A., M.A.C.E., President, St. Stanislaus College.
Right Rev. E.K. Leslie, B.A. Th.School., Lord Bishop of Bathurst.
M.H.C. Locke, Esq., President, Turon Shire Council.
J.C. McNamara, Esq.
J.P. McNamara, Esq.
R.E. Meyer, Esq., B.Ec., Dip.P.E., M.Ed., M.A.C.E.
C.G. Osborne, Esq., M.L.A.
A.C. Pepper, Esq., M.B.E., M.B., B.S.
M.F. Pitcher, Esq., Chairman, Technical Education, Bathurst District Committee.
Mrs. Joan Rutherford.
J.M.S. Stevenson, Esq., Deputy Mayor of Bathurst.
Most Rev. A.R.E. Thomas, D.D., Dip.Soc.St., Catholic Bishop of Bathurst.
J. Williamson, Esq., Councillor, Rylstone Shire Council.

Honorary Consultant :

L.M. Short, Esq., M.Sc., Dip.Ed., D.Phil., Director, Educational Research Unit, University of New South Wales.

PERSONS AND ORGANIZATIONS WHO MADE SUBMISSIONS TO THE COMMITTEE

The Committee would like to thank all the following who made submissions and rendered assistance by giving expert advice :

Blaxland Shire Council - Mr. W. Wright, Shire Clerk.

Mr. T. Bray, Chairman, Farmers and Graziers Ltd. and Member of Executive of Graziers Association of N. S. W.

Brewarrina Shire Council - Cr. V. J. Williamson, Shire President.

Mr. S. Brown, Solicitor, Dubbo.

Dr. F. C. Butler, Deputy Director-General of Agriculture.

Central N. S. W. College of Advanced Education Committee -
Mr. L. J. Allen, Principal, Bathurst Teachers College;
Mr. W. Dow, Editor, Western Advocate, Bathurst;
Mr. J. W. Fordyce, Principal, Bathurst Technical College;
Mr. K. Hiscox, General Secretary, Bathurst District Hospital;
Mr. I. G. Hope, Consulting Engineer, Bathurst;
V. Rev. Fr. J. Keady, President, St. Stanislaus College;
Mr. R. Meyer;
Dr. A. C. Pepper.

Cobar Chamber of Commerce - Mr. W. F. Houghton.

Cobar Parents and Citizens Association - Mr. Prisk.

Cobar Shire Council - Cr. W. S. Brennan.

Coolah Shire Council - Cr. B. A. Bowman.

Coonabarabran Shire Council - Mr. C. D. Renshaw, Shire President.

Coonamble Shire Council - Cr. Maguire.

Country Women's Association, Dubbo Branch - Mrs. Baxter.

Darling Shire Council - Mr. L. D. Davis, Shire President.

Mr. Debenham, Citizen, Forbes.

Mr. M. G. DeFerranti, Area Director of Education (Western Area).

Dubbo City Council - Ald. K. L. C. Dunlop, Mayor of Dubbo; Ald. R. A. Allan, Deputy Mayor of Dubbo.

Dubbo City Council Decentralization Committee - Ald. K. R. Marshall, Chairman.

Dubbo Education Association - Mrs. J. Flint, Chairman.

Forbes Municipal Council - Ald. G. A. Barker, Mayor of Forbes; Ald. A. Scrivener, Deputy Mayor of Forbes; Mr. H. J. Dawson, Town Clerk.

Gilgandra Shire Council - Cr. C. Stockings.

Graziers Association of N. S. W., Dubbo Branch - Mr. M. Walters, Chairman; Mr. P. E. B. MacInnes.

Mr. W. Gregory, Chairman, Lithgow District Hospital Board and Western District Officer of the Joint Coal Board.

Hartley Electricity County Council - Ald. F. R. Jeffrey, Chairman.

Jemalong Shire Council - Cr. N. T. Edols, President; Cr. Hammond, Deputy President; Cr. Darcy.

Lithgow City Council - Ald. J. M. Robson, Mayor of Lithgow; Ald. B. W. Genders.

Mr. A. S. Luchetti, M. H. R. for Macquarie.

Macquarie County Council - Mr. May, County Clerk.

Macquarie Regional Development Committee - Cr. K. D. W. Masters, President.

Mr. G. S. Michie, Acting Principal, Lithgow Technical College.

Mr. I. Middleton, District Inspector of Schools, Lithgow.

Mitchell Region Productivity Group Senior Council.

Narromine Municipal Council - Mr. N. Payten, Town Clerk.

Nyngan Municipal Council - Ald. J. Vanges, Mayor of Nyngan.

Nyngan and District Chamber of Commerce.

Orange Advanced College Committee - Mr. B. Maundrell, Chairman; Ald. R. J. Hill, Mayor of Orange;
Mr. J. M. Buxton, Vice Chairman of Board, Orange Base Hospital;
Mr. P. J. W. Cottrell, Foundation Chairman, Senior Council, Mitchell Region Productivity Group;
Mr. C. E. Neil, Company Director and Orchardist, Orange.

Orange City Council - Ald. R. J. Hill, Mayor of Orange.

Orange High School Parents and Citizens Association.

Parkes Municipal Council - Ald. J. E. Scoble, Mayor of Parkes.

Parkes Citizens' Committee - Ald. Maguire, Mr. E. May, Mr. N. McDonald.

Peak Hill Municipal Council - Mr. Thompson, Town Clerk.

Matron M. V. Roche, Dubbo Base Hospital.

Mr. P. Roebuck, Superintendent, Wallerawang Power Station.

Talbragar Shire Council - Cr. L. Graham, President; Cr. Craig.

Mr. R. Tindall, Reporter, Parkes Champion Post.

Mr. J. Tucker, Dentist, Dubbo.

Turon Shire Council - Cr. M. N. C. Locke, President.

United Farmers & Woolgrowers Association of N. S. W. - Mr. J. H. Alty, Chairman, U. F. W. A. Education Sub-Committee.

Western (N. S. W.) Tertiary Education Committee - Cr. L. M. Stapleton, Chairman.

Mr. R. Weston, Farm Management Consultant, Forbes.

Mr. G. White, General Manager, Small Arms Factory, Lithgow.

Professor A. H. Willis, Dean of the Faculty of Engineering, University of New South Wales.

APPENDIX C

RESEARCH REPORT - PART I

By

C. S. Terry, B. Com., M. Ec.,

Research Assistant

ECONOMIC SURVEY
OF THE
MITCHELL, LACHLAN AND MACQUARIE REGIONS

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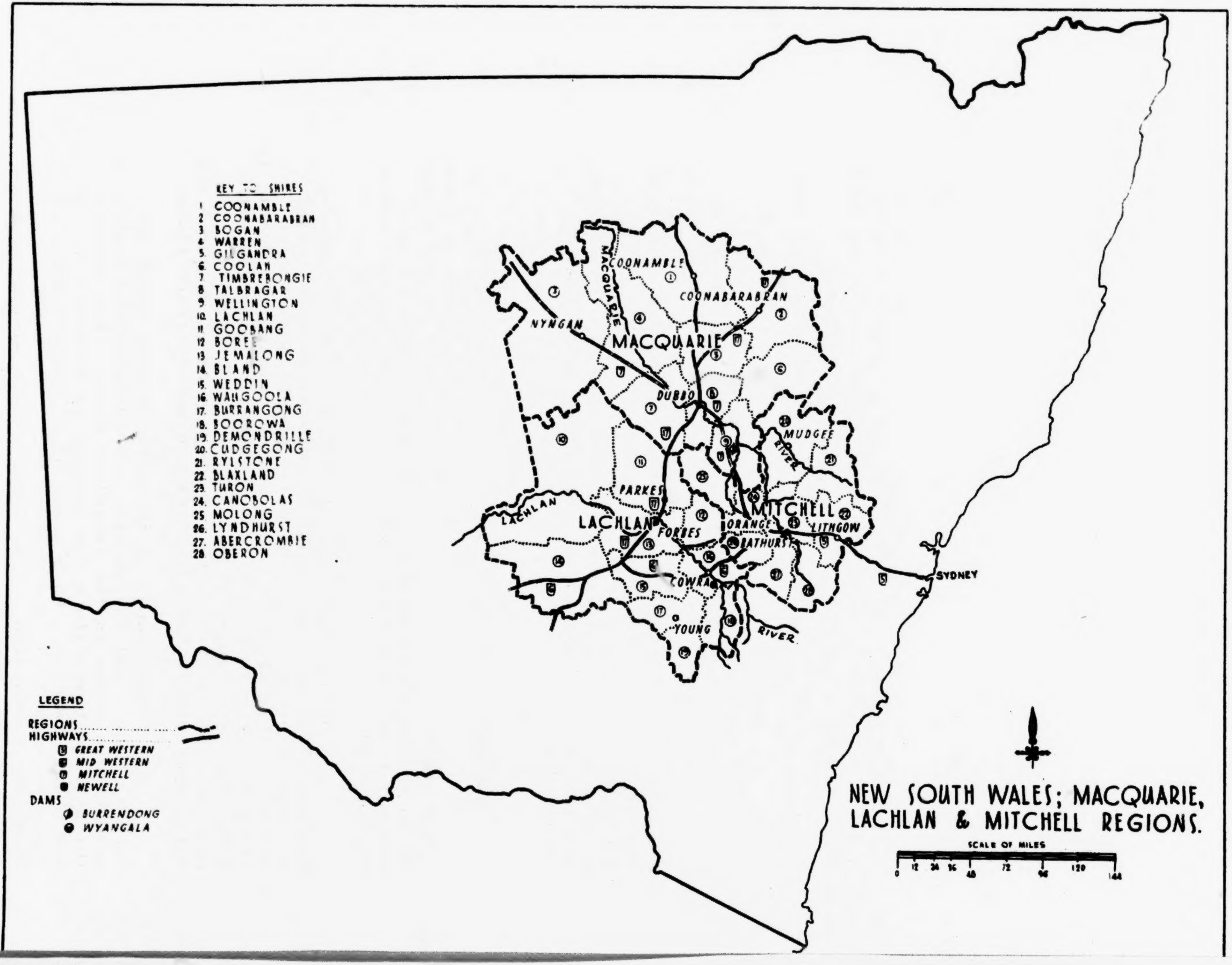
PREFACE

The Commonwealth Bureau of Census and Statistics publications have been the main source of information for this report, and the facilities and co-operation of that Department have been of much assistance in its preparation. Unfortunately, certain detailed statistics from the 1966 Census, concerning age distribution and employment in Local Government areas were not available at the time of writing this report. To some extent, supporting information from other sources has suggested that the position has not altered much since 1961.



KEY TO SHIRES
1 COONAMBLE
2 COONABARABRAN
3 BOGAN
4 WARREN
5. GILGANDRA
6. COOLAH
7. TIMBREBONGIE
8 TALBRAGAR
9 WELLINGTON
10. LACHLAN
11. GOOBANG
12 BOREE
13 JEMALONG
14. BLAND
15. WEDDIN
16. WAUGOOLA
17. BURRANGONG
18. BOOROWA
19. DEMONDRILLE
20. CUDGEGONG
21. RYLSTONE
22. BLAXLAND
23. TURON
24. CANOBOLAS
25 MOLONG
26. LYNDHURST
27. ABERCROMBIE
28 OBERON
MACQUARIE
COONAMBLE
COONABARABRAN
NYNGAN
DUBBO
MUDGEE
RIVER
PARKES
LACHLAN
LACHLAN
FORBES
ORANGE
MITCHELL
BATHURST
LITHGOW
SYDNEY
COWRA
YOUNG
RIVER
LEGEND
REGIONS
HIGHWAYS
GREAT WESTERN
MID WESTERN
MITCHELL
NEWELL
DAMS
BURRENDONG
WYANGALA
SCALE OF MILES
0
12
24
36
48
72
96
120
144

NEW SOUTH WALES; MACQUARIE, LACHLAN & MITCHELL REGIONS.

1. INTRODUCTION AND SEVERAL ENVIRONMENTAL FACTORS.

(i) The survey is organised under five headings - Introduction, Population Characteristics, Industry and Employment (which is discussed in three sections), Cultural Activities and Surveys of Bathurst, Orange and Dubbo.

(ii) The main purpose of this survey is to provide information, mainly on the economic features of the area, which would be relevant to the nature (and possibly, location) of the proposed College of Advanced Education. The Committee's terms of reference imply that the activities of the people, in terms of employment and educational consciousness within the area, are important considerations to both the location and the nature, in terms of courses to be offered, of the proposed College.

The area to be examined by the Committee is defined as the Mitchell, Lachlan and Macquarie Regions. Regions are comprised of Local Government units and were conceived by the Premier's Department as "Regions for Survey and Planning". The attached map shows the location of the regions and the larger towns within the area.

(iii) In analysing the geography of the three regions, it is relevant to look at the Commonwealth Statistician's Divisional Classifications of this State. The Statistician's classifications include Wellington, Orange, Cowra, Bathurst and Lithgow in the Central Tableland Division, whereas Dubbo, Parkes and Forbes are included in the Central Western Slope Division. Towns further west are classified in Central Plain (Condobolin, Nyngan), and finally in the Western Division (Bourke, Broken Hill).

Climatic Conditions

(iv) In general, towns on the Tablelands have lower temperatures and higher rainfall than towns on the Slopes or on the Western Plains. Mean temperatures rise, average rainfall and altitudes decline the further westward one goes.

Of the three main towns on the Tablelands - Lithgow, Bathurst and Orange - Bathurst has the lowest average rainfall and, marginally, the highest temperatures. This climatic condition is related, no doubt, to its relatively lower altitude (2,200 feet compared with 2,800 feet at Orange, and 3,017 feet at Lithgow). However, the slightly higher temperatures at Bathurst are not comparable to those recorded in more western towns.

Temperatures in the more western towns of Parkes, Dubbo, and Condobolin, are considerably higher in summer than those in the Tableland area. For example, the average temperature for January in Bathurst, Lithgow and Orange is 69.8^{o}, 64.9^{o}, and 68.8^{o} respectively, as compared with 77.4^{o} for Parkes, 77.9^{o} for Dubbo, and 79.9^{o} for Condobolin. The January mean maximum temperatures for the more western towns are over 90^{o}, which are about 10° higher than the equivalent temperatures for Bathurst, Lithgow and Orange.

Although temperatures are higher in the west, it is also true that the temperature range is slightly greater. This applies to the monthly temperature range during the year, and not to the daily temperature range which is fairly similar in each of the towns examined. The more western towns are not as cold in the winter months, although the temperature margin between the two areas is not as great in winter. For example, in July, the average minimum temperature is 37.5° in Dubbo as compared with 34.0° in Bathurst, 32.4° in Lithgow and 31.4° in Orange; the temperature margin being about 5° only. However, relatively warmer summer mornings in the more western towns keep year-round minimum temperature averages reasonably high, at about 8° above the average minimum temperatures for Bathurst, Orange and Lithgow.

Rainfall throughout the area is fairly even in that no seasonal pattern is evident. The average rainfall ranges from just over 32" at Lithgow in the east, to just under 15" at Nyngan in the west.

TABLE 1: CLIMATIC STATISTICS

	Average Daily Temperatures (Degrees)						Rainfall (points)
	Maximum	(a) Range	Minimum	(a) Range	Mean	(a) Range	Yearly Average
Lithgow	64.5	28.1	42.1	19.6	53.3	23.7	3,270 (b)
Bathurst	69.9	30.0	44.2	21.6	57.1	25.9	3,256 (b)
Orange	68.1	32.3	42.0	22.3	55.1	27.3	3,152 (b)
Parkes	74.5	33.5	52.1	24.5	63.3	28.9	2,081 (b)
Dubbo	76.8	32.4	50.5	26.3	63.6	29.3	2,091 (b)
Condobolin	78.4	34.1	51.6	27.3	65.0	30.6	1,612 (b)
Nyngan	77.6	33.4	52.0	28.6	64.8	31.0	1,492 (b)

SOURCE: Commonwealth Bureau of Meteorology, Climatic Averages of Australia.

(a) In most cases, the temperature extremes occur in January and July, so the temperature range is normally the temperature differences between these months.

(b) The rainfall distribution for all areas is even.

TABLE 2: AVERAGE TEMPERATURES

	January			July		
	Maximum	Minimum	Daily Range	Maximum	Minimum	Daily Range
Lithgow	78.0	52.0(a)	26.0	49.9	32.4	17.5
Bathurst	83.9	55.6	28.3	53.9	34.0	19.9
Orange	83.9	53.7	30.2	51.6	31.4	20.2
Parkes	90.6	64.3(a)	26.3	57.1	39.8	17.3
Dubbo	92.1	63.8	28.3	59.7	37.5	22.2
Condobolin	94.4	65.5	28.9	60.3	38.2	22.1
Nyngan	93.6	66.2	27.4	60.2	37.6	22.6

SOURCE: Commonwealth Bureau of Meteorology, Climatic Averages of Australia.

(a) February's temperature, as it was higher than January's.

Communications

(v) The Central West is served by rail, road and air services. In the case of rail and road services, there is a direct link from Sydney to Bathurst before the highways and railways "fan-out" to serve the areas west of the Blue Mountains. In the case of air services, Sydney is linked directly with several cities (Bathurst, Orange, Parkes, etc.).

The frequency of services to most central western towns is generally only once a day from Sydney in the case of the railways, and possibly two-three times a day in the case of air services. Operating facilities between the main towns are, generally, not extensive, and it would appear that, should students of the proposed College be expected to travel between the main centres (for example, Orange to Bathurst) additional facilities (possibly, a daily bus service) would be required.

Local civic leaders referred to impending improvements in road and rail facilities in the Central West, the main instances being the Melbourne-Brisbane rail link, the Sydney-Adelaide - Perth rail link, and the Orange-Mudgee road link, each of which should contribute to the development of the area.

Reference has also been made to the road links between Orange and Bathurst, (about 35 miles), and Lithgow and Bathurst (about 41 miles). The highway between Orange and Bathurst is of good condition and in the summer would involve a 45-minute drive by car. In winter, driving conditions would be more difficult, possibly requiring an extra 10-15 minutes to safely negotiate the journey by car. Buses would, of course, take longer.

In the case of the highway between Lithgow and Orange, the road entails more bends and is about 6 miles longer. It would therefore require about 15 minutes driving time more than between Bathurst and Orange. However, the Department of Main Roads is currently re-building a section of about 15 miles at the Bathurst end of the highway. When completed, this section would reduce the time to safely travel between these cities, by, say, 10 minutes.

It is mentioned that most of the towns in the Central West have recently been connected through the introduction of the automatic exchange system.

2. POPULATION CHARACTERISTICS

(i) The total population of the three regions, as at the 1966 Census, is 248,903 comprising 127,126 males and 121,777 females. This represents a decrease of 1,712 or 0.68% since the 1961 Census, which, an examination of earlier (1954 and 1947) Census figures reveals, is the continuation of a slightly downward trend since the 1954 Census.

Regions	Census Population				Variations	
	1947	1954	1961	1966	1961-1966	1954-1966
Mitchell	93,450	101,457	99,792	97,818	-1,974	-3,639
Lachlan	77,131	85,773	83,054	84,912	+1,858	- 861
Macquarie	55,592	64,780	67,769	66,173	-1,596	+1,393
TOTALS	226,533	252,010	250,615	248,903	-1,712	-3,107

SOURCE: Census Bulletins.

(ii) Possibly the most significant feature of the statistics has been the almost general decline in rural population, as distinct from urban population. This has meant that whilst most country towns secured population increases of different sizes (Orange with 2,033, Dubbo with 1,450, and Cowra with 794, recording the largest gains) almost every Shire suffered a decline. Waugoola Shire, with a gain of 1,058 was the only exception to the generalisation, but the gain in population there appears to be due solely to the construction work on Wyangala Dam.

(iii) Within the three regions are four cities with a population in excess of 10,000, as at the 1966 Census. These are Orange (21,000); Bathurst (17,220); Dubbo (15,568) and Lithgow (12,813). Forbes (7,370) and Parkes (8,431) are within twenty-one miles of each other and together would constitute a fifth population centre with over 10,000 persons.

(iv) Having regard to the location of the population centres within the three regions, it is apparent that the eastern section of the over-all area has the highest population concentration, with the Orange-Bathurst-Lithgow combination of 51,033 persons, representing the greatest concentration of urban population.

In the central portion of the area there is a belt of towns running North to South, although there is really no one substantial area of population concentration. Dubbo, the largest town in question, is 76 miles from Parkes, and therefore, ought to be held separate from Parkes and Forbes, although Cowra (7,082 persons) is only 42 miles from Forbes. This would suggest a Parkes-Forbes-Cowra combination with 22,883 persons (not counting the rural population between the towns). However, this combination is not as large as the Narromine-Dubbo-Wellington combination of 23,862 persons, which should be increased to 26,267 by the inclusion of Gilgandra (2,405 persons) as it is only 40 miles from Dubbo.

In the western sector of the three regions the population becomes more sparse with fewer and smaller population centres, such as Condobolin (3,569 persons) and Nyngan (2,584 persons).

The following population density figures illustrate this point:-

Area	Square Miles	1966 Population	Density (persons per sq.mile)
Western Area	29,562	49,974	1.69
Central Area	15,903	105,087	6.61
Eastern Area	9,077	93,842	10.34
TOTAL	54,442	248,903	4.57

SOURCE: Census Bulletin.

The population density for the three regions is as follows:-

Mitchell	9.78 persons per square mile
Lachlan	4.40 persons per square mile
Macquarie	2.62 persons per square mile

(v) The following table organises population figures on an area basis in relation to each of the large towns involved in the Committee's enquiries.

POPULATION STATISTICS: SELECT AREAS: 1954-1966.

Area	1954	1961	1966	Variation 1954-66	Variation 1961-66
Bathurst Area					
Municipality of Bathurst	16,089	16,938	17,220	+ 1,131	+ 182
Within 50 mile radius	79,901	79,431	78,494	- 1,407	- 937
Within 100 mile radius	187,863	204,808	219,518	+31,655	+14,710
Excluding Penrith	169,939	172,839	173,192	+ 3,253	+ 353
Orange Area					
Municipality of Orange	18,247	18,977	21,000	+ 2,753	+ 2,023
Within 50 mile radius	63,401	63,365	64,348	+ 947	+ 983
Within 100 mile radius	179,835	179,255	178,193	- 1,542	- 962
Including Blue Mountains	202,994	207,374	209,011	+ 6,017	+ 1,637
Parkes Area					
Municipality of Parkes	7,973	8,223	8,431	+ 458	+ 208
Within 50 mile radius	36,536	35,697	35,492	- 1,044	- 205
Within 100 mile radius	159,250	160,926	164,490	+ 5,240	+ 3,564
Dubbo Area					
Municipality of Dubbo	12,009	14,118	15,568	+ 3,559	+ 1,450
Within 50 mile radius	37,892	41,115	40,836	+ 2,944	- 279
Within 100 mile radius	126,872	129,443	129,204	+ 2,332	- 239

NOTE: The area surrounding each of the above towns was defined in terms of Local Government regions, such that should the majority of the population of a Shire (having regard to the main population centres within the Shire) lie within 50 or 100 road miles of the central town, then the total population of the Shire would be included within the region. This was done in preference to proportioning the population of such marginal Shires, which, it was thought, would not improve the accuracy of the figures.

SOURCE: Census Documents.

In analysing the figures, regard should be had to the population trends within the areas making up each region. The area within 50 miles of Bathurst includes Lithgow, which has had a declining population over recent years. The presence of Orange probably offsets the fall in population in the surrounding Shires.

The area within 100 miles of Bathurst includes not only the Blue Mountains, which has had a growing population, but also Penrith, whose population has increased over 13,000 (or 40%) since 1961. Hence, allowing for the decline in rural population in the area, the population within 100 miles of Bathurst rose by 14,710 since 1961 (and by 31,655 since 1954).

It is doubtful whether Penrith will come within the sphere of influence of Bathurst. Comparing the population within 100 miles of Bathurst, excluding Penrith, with the population within 100 miles of Orange (including the Blue Mountains), the Orange figure is some 36,000 greater than the Bathurst figure. This margin is reduced to 5,000 should the Blue Mountains population be excluded from the Orange figure.

The area within 50 miles of Orange includes only two large towns (Orange and Bathurst) and a large proportion of the population is, in fact, rural population, so that the population increase of 2,305 which occurred in Orange and Bathurst was partly offset by declines in the surrounding Shires, leaving an overall increase of 1,045.

The area within 100 miles of Orange takes in Lithgow and the Shire of Wellington, which both suffered large population falls. However, should the Blue Mountains area be included in this area (Katoomba being about 100 miles from Orange), the position would alter, such that the over-all population would be 209,011, a rise of 1,637 over 1961. From the point of view of "spheres of influence", it would be difficult to establish the extent to which a College at Orange could attract students from the Blue Mountains, but having regard to the distance of the Blue Mountains from Sydney, it would seem that it could have some chance as most Blue Mountains students would have to reside in Sydney to attend tertiary educational institutions there.

The area surrounding Parkes is more sparsely populated than in the case of Bathurst and Orange. The rise in population, since 1961, within 100 miles of Parkes (3,564), resulted from population increases at Dubbo, Orange, Cowra and Waugoola Shire.

In the case of the Dubbo area, the population within both 50 and 100 miles declined slightly since 1961, although the 1966 figures were considerably higher than the 1954 figures. This movement is partly accounted for by the increase of 819 (1954-1961) and the decline of 1,618 (1961-1966) of population in the Wellington Shire. The construction of the Burrendong Dam would largely explain the population movement within the Wellington Shire.

It is noted that the population within 50 miles of Dubbo is greater than that within 50 miles of Parkes, but the relative seclusion of Dubbo (few large towns within 100 miles) meant that Dubbo had the smallest population, within 100 miles, of any of the four towns examined.

(vi) NOTE: At this stage, the 1966 Census figures relating to the age distribution of the population in Local Government areas has not been released.

However, the following figures of age distribution, provided by the 1961 and 1954 Censuses, are presented as a rough guide to the student potential within the area. It is pointed out that population within the area has tended to be rather static, although the view has been expressed by persons in the country that the area has tended to lose, through migration, more teenagers than it has gained.

REGIONAL POPULATION STATISTICS:

	Age Distribution Up To 14 Years					
	1954 Census			1961 Census		
	0-4	5-9	10-14	0-4	5-9	10-14
Mitchell	11,934	11,409	9,468	11,315	10,525	10,598
Lachlan	11,227	9,479	7,411	10,567	9,830	8,468
Macquarie	8,152	6,849	5,314	8,353	7,631	6,213
TOTAL	31,313	27,737	22,193	30,235	27,986	25,279

SOURCE: Census Bulletins.

POPULATION STATISTICS: TOWNS AND SURROUNDING AREAS:

Age Distribution Up To 14 Years

Towns and Surroundings	1954 Census			1961 Census		
	0-4	5-9	10-14	0-4	5-9	10-14
Bathurst	1,722	1,686	1,706	1,620	1,608	2,049
- Area within 50 miles	9,131	8,743	7,318	8,949	8,374	8,533
- Area within 100 miles	22,448	20,814	16,723	24,198	22,231	21,296
- Excluding Penrith	20,140	18,690	15,189	19,810	18,503	17,661
Orange	2,126	2,004	1,681	2,206	2,075	2,114
- Area within 50 miles	7,256	6,844	5,922	6,944	6,737	6,904
Parkes	1,043	817	780	980	957	855
- Area within 50 miles	4,366	3,967	3,407	4,375	4,285	3,814
Dubbo	1,390	1,309	1,237	1,676	1,517	1,517
- Area within 50 miles	4,925	4,244	3,459	5,328	4,813	4,103

SOURCE: Census Bulletins.

(vii) The numbers in the 10-14 age group at the 1961 Census provide a rough guide to the student potential of the area, from 1964 to 1969. Although the changing rate of births (in this case, a rising rate, in the 1947-1951 period) increases the dangers of using average figures, it is suggested that the number of persons turning 18 in 1968, within the three regions, would approximate five thousand (2,100 in Mitchell, 1,700 in Lachlan and 1,200 in Macquarie).

Having regard to the proportion of the population (in that age group) that might attain the Higher School Certificate in that year, assumed to be 18%, it is suggested that the student potential, within the three regions, would approximate nine hundred in 1968. The proportion of these persons likely to undertake courses at the proposed College is a further matter of conjecture. Applying the above approach to the population, within 50 miles of Bathurst, there would be an approximate student potential of slightly in excess of three hundred, and to the population within 100 miles of Bathurst, slightly less than seven hundred.

3. EMPLOYMENT AND INDUSTRY IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS.

(i) Employment statistics collected by the 1966 Census have not, as yet, been released, so that the figures for 1961 have to be used. It was pointed out earlier that the over-all population has decreased slightly, although the decline was in the rural areas, and the population of most towns in fact increased. This implies that the numbers employed would not have altered much since 1961, although rural employment would have fallen and employment in tertiary industries would probably have increased over the period.

Within the three regions, employment totalled 92,951 persons in 1961, of which 32,227 or 34.6% were employed in primary industries, 10,952 or 11.8% employed in secondary industries, and 49,872 or 53.6% employed in tertiary industries.

It is apparent from these over-all figures that the main avenues of employment are farming and grazing and in the service industries in the towns. Secondary industry does not employ a relatively large number of persons in that area of the State.

The above figures might be compared with those for Australia as a whole, where 513,286 or 12.4% were employed in primary industries, 1,140,335 or 27.5% were employed in secondary industries, and 2,386,035 or 60.1% were employed in tertiary industries, as at the 1961 Census.

In the 1954-1961 Intercensal period, employment in primary industries, for Australia as a whole, fell by 41,383 or 8.1%, whereas employment in secondary industry increased by 113,004 or 9.9%, and employment in tertiary industries increased by 403,441 or 16.2%. Hence the suggested increase in employment in tertiary industries in the three regions would be in line with the wide trend revealed by the above figures.

The importance of primary industries and the comparative lack of secondary industries in the three regions is clearly shown by the comparison with the figures for Australia as a whole.

Primary Industries

(ii) The main Primary industries are mixed farming (sheep and wheat etc.) and grazing. The following table indicates the levels of employment in primary industries in 1961.

EMPLOYMENT IN PRIMARY INDUSTRIES: 1961

Region	Fishing, Hunting, Trapping	Mixed Farming	Grazing	Dairying, Pig and Poultry	Forestry	Total	Mining and Quarrying
Mit.	48	3,593	3,610	365	241	7,857	1,275
Lac.	30	8,571	3,552	378	69	12,600	180
Mac.	52	4,641	5,079	228	275	10,275	40
TOTAL	130	16,805	12,241	971	585	30,732	1,495

SOURCE: 1961 Census Bulletin.

Collectively, Farming and Grazing employs 29,046 persons, which represents 90.1% of total employment in Primary industries in the three regions. Mining and Quarrying employs 1,495 (or 4.6%) in the three regions, of which 1,275 are employed mainly in the Lithgow-Portland area.

(iii) As the importance of Primary Industries tends to be revealed more in terms of output than in terms of employment, a brief outline of the types and quantities of items produced is now presented. The figures referred to in this section relate, in the main, to the 1965/66 season, these being the most recently available, and to the 1963/64 season, this season being unaffected by drought conditions.

Sheep and Wool

(iv) Wool is one of the main goods produced in the area. Production in 1965/66 amounted to 179 million pound, as compared with 208 million pound in 1963/64. This output was obtained from 20.8 million sheep (22.3 million in 1963/64) which were run on 13,369 holdings. However, it is pointed out that a proportion of sheep are bred for fat lamb purposes, rather than for the production of wool.

PRODUCTION OF SHEEP AND WOOL: 1963/64 AND 1965/66.

Region	Sheep		Wool: (1,000 lbs.)	
	1963/64	1965/66	1963/64	1965/66
Mit.	4,794,693	4,722,842	41,580	35,979
Lac.	8,649,843	9,212,832	80,104	80,156
Mac.(a)	8,820,748	6,851,540	86,725	62,649
	22,265,284	20,787,214	208,409	178,784

SOURCE: The Sydney Office of the Commonwealth Bureau of Census and Statistics.

(a) Macquarie region suffered more heavily from the drought.

Grain Production

(v) The production of grain crops is another major primary activity. Grain products include wheat, oats, barley, rye and sorghum. The following table indicates the acreage and yield of these grain crops for the 1963/64 season:-

PRODUCTION OF GRAIN PRODUCTS: 1963/64

	Mitchell	Lachlan	Macquarie	TOTAL
Wheat				
Acres	98,789	1,391,070	814,087	2,302,946
'000 Bushels	2,131	31,295	19,644	53,170
Oats				
Acres	82,608	300,132	187,968(a)	570,708
'000 Bushels	982	5,268	2,250	8,500
Barley				
Acres	631	47,940	15,221	63,792
'000 Bushels	8	1,001	211	1,220
Maize (b)				
Acres	1,999	45	109	2,153
Sorghum (b)				
Acres	124	1,453	3,739	5,316

SOURCE: Commonwealth Bureau of Census and Statistics.

(a) 97,000 acres for grazing purposes.

(b) total production for these items is less than 135,000 bushels.

It is seen that grain production is not as important in the Mitchell region as in the Lachlan region, which is the largest producer of the three regions of wheat, oats and barley. Maize, a less important grain crop, is grown mainly in the Mitchell region.

(vi) The relative significance of these two activities (sheep and grain production) can also be shown in terms of the proportion of rural holdings which are engaged in these activities.

NUMBER OF HOLDINGS

MITCHELL, LACHLAN AND MACQUARIE REGIONS, 1965/66

	Mitchell	Lachlan	Macquarie	TOTAL
Total Number of Holdings	5,222	6,793	4,470	16,485
Total Area (million acres)	4.7	11.4	14.4	30.5
Number of Holdings Growing Wheat	944	4,552	2,434	7,930
Number of Holdings Running Sheep	3,464	5,989	3,916	13,369
Number of Holdings with Dairy Cattle	65	53	37	155
Number of Holdings with any Cattle	1,715	1,915	1,955	5,575

SOURCE: The Sydney Office of the Commonwealth Bureau of Census and Statistics.

NOTE: The extent of "mixed farming" would appear to be fairly substantial.

(vii) The figures indicate that sheep numbers are fairly uniform throughout the three regions, although the smallest region, Mitchell, has less sheep holdings than the other two regions. In comparison, wheat and oats, the main grain crops, are grown far more extensively in the Lachlan and Macquarie regions than in the Mitchell region.

REGIONAL COMPARISON OF SHEEP AND WHEAT PRODUCTION:1963/64

	Mitchell	Lachlan	Macquarie	TOTAL
Area of Region				
Million Acres	6.4	12.3	16.2	34.9
%	18.3	35.2	46.5	100.0
Area of Rural Holdings				
Million Acres	4.7	11.4	14.4	30.5
%	17.3	36.9	45.8	100.0
Index of Land Use (a)	7	9	9	
Number of Sheep 1963/64				
Million	4.79	8.65	8.82	22.26
%	23.5	37.9	38.6	100.0
Index of Land Use (a)	8	7	5	
Wheat Acreage 1963/64				
Acres	98	1,391	814	2,303
%	5.2	59.8	35.0	100.0
Index of Land Use (a)	2	11	5	

SOURCE: Commonwealth Bureau of Census and Statistics.

(a) Degree of utilization of the land within each region. This index intends to adjust the regional figures for the differences in the size of regions.

After adjusting the regional production figures for the difference in the sizes of the three regions, it is apparent that wheat growing is carried on more intensively, whereas the Mitchell region has the greatest number of sheep per acre of the regions. However, it is apparent that the Lachlan region is the most important of the three, in terms of wheat and sheep acreages and rural land utilization.

(viii) It is also apparent, by examination of the figures of the 1965/66 season, that the Lachlan region was less affected by the drought than the other regions, whereas the Macquarie region was affected the most. However, there are several large dam projects being undertaken at the moment which could have a pronounced effect on agriculture in the Lachlan and Macquarie regions.

The capacity of the Wyangala Dam on the Lachlan River, 20 miles below Cowra, is being substantially increased, and the recently constructed Burrendong Dam on the Macquarie River, 15 miles below Wellington, is in the process of filling-up.

The potential effects of these Dams are important, in terms of increased intensive-type farming on the river flats, and pasture improvements for grazing purposes. It would appear reasonable to expect that, over the next few years, these Dams could lead to a population increase in the rural areas, by way of new vegetable and orchard farms, and a reduction in the size of an economic grazing property*. However, the extent of this trend is not predictable.

(ix) Of the agricultural pursuits other than sheep and wool (namely, vegetables, orchards, poultry, pigs and cattle) only cattle breeding is carried on in any general way. In the case of vegetable growing and orcharding, there are several areas where these exist. For example, Orange, Cowra, Talbragar Shire, but they are not generally grown throughout the three regions.

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* It is noted that the population in the rural areas (Shires) within the Riverina have increased substantially between 1961 and 1966, whereas no such increases occurred in the Central-West of the State.

PRIMARY PRODUCTION: SELECTED PRODUCTS: 1963/64 AND 1965/66

Region	Year	Cattle		Poultry	Pigs	Orchards Non-Citrus	Vegetables
		Dairy	Total all Cattle				Total Area for Human Consumption
		Number	Number	Number Sold	Number	Bushels	Acres
Mitchell	1963/64	5,669	191,706	N.A.	10,256	1,956,047	N.A.
	1965/66	4,835	155,581	163,571(a)	11,580	1,582,948(c)	1,445(b)
Lachlan	1963/64	4,973	213,539	N.A.	69,201	489,592(f)	N.A.
	1965/66	4,886	199,686	97,820	91,528	299,194	2,670(d)
Macquarie	1963/64	3,271	266,742	N.A.	30,791	41,234	N.A.
	1965/66	2,574	192,939	110,484(e)	31,201	27,170	896
TOTALS	1963/64	13,913	671,987	N.A.	100,248	2,486,873	N.A.
	1965/66	12,295	548,206	371,875	134,309	1,909,312	5,011

SOURCE: Commonwealth Bureau of Census and Statistics, Rural Industries, Statistical Register.

NOTES: (a) The main area being Abercrombie Shire.

(b) The areas being Canobolas, Lyndhurst, Oberon and Turon Shires. The main products being asparagus (Turon), peas (Oberon), potatoes (Canobolas and Lyndhurst).

NOTES: (Cont'd)

(c) Main product being apples, grown in the Canobolas Shire.

(d) The main product grown being asparagus (although many garden vegetables are grown) within Waugoola Shire.

(e) The main areas being Timbrebongie and Coonabarabran Shires.

(f) Main product being prunes, grown in the Burrangong Shire.

N.A. - Not available.

Of the other agricultural pursuits, poultry farming, although not being of major importance, is fairly well spread throughout the three regions, whereas pig farming is more important within the Lachlan area. The figures indicate that, whilst the Mitchell region has the largest number of dairy cattle, dairying is not carried on to any great extent within the three regions.

(x) Forestry and Mining are important primary industries in certain areas. Mining and Quarrying is located mainly in the Lithgow-Portland-Kandos area, where coal-mining and cement production are important pursuits. In 1961, 1,275 persons were engaged in Mining and Quarrying within the Mitchell region.

At the time of the 1961 Census, five hundred and eighty-five persons were engaged in the Forestry industry; two hundred and forty-one in the Mitchell region, and two hundred and seventy-five in the Macquarie region. In the case of the Mitchell region, the Forestry Commission has been expanding its forests at an increasing rate. Since 1961, over 16,600 acres of softwood has been planted (allowing for replanting due to the drought). The Commission has indicated that sales of softwood have doubled over the last five years, and expects the upward trend will continue. Sales of hardwood have fluctuated from year to year, but were lower in 1965/66 than in 1961/62.

At present, the Forestry Commission employs approximately 240 persons in the Bathurst district, and it is estimated that an additional 550 are employed in the area in logging operation, haulage and sawmill or factory operations.

SUMMARY

The main Primary industries in the three regions are farming and grazing, with a significant proportion of properties engaged in both sheep and wheat farming. Mining and quarrying is the only other Primary industry of significance in the area.

The Lachlan region is the biggest primary producing area, even though the Macquarie region is larger in area. Whilst grain production is substantially lower in the Mitchell region, it is evident that almost all primary products grown in the three regions are grown in the Mitchell region. In fact, the range of primary activities would be greatest in the Mitchell region.

Secondary Industries

(i) Whilst there are several large industrial establishments scattered throughout the three regions, it is evident that the three regions are under-developed in terms of secondary industry. Lithgow would be the only city with some sort of industrial complex.

The location of several industrial establishments, within the three regions, can be related to the raw materials found or grown in the area; for example, Edgells, the Abattoirs, Cement Companies, and possibly, Wallerawang Power Station. Several other establishments have located in the Central West as a result of the Government's activity in regard to the decentralization of industry; for example, the Clothing Factories in Lithgow and Emails Ltd.

(ii) The following is a list of the main Secondary industries, and the larger establishments involved, within the Mitchell, Lachlan and Macquarie regions.

Industry	Company	Location	No.of Staff
Food Processing	Gordon Edgells Pty.Ltd.	Bathurst	350(b)
	Rodgers Meat Company	Orange	220
	Blayney (Abattoir) County Council	Blayney	220
	Cudgegong (Abattoir) County Council	Mudgee	80
	Barretts Milk & Ice-Cream and Frozen Foods Factories	Orange	90
	Gordon Edgells Pty.Ltd.	Cowra	250
	Lachlan Regional Abattoirs	Forbes	160
	Dubbo Council Abattoirs	Dubbo	270
Manufacturing	Emails Ltd.	Orange	1,400
	Commonwealth Small Arms Factory	Lithgow	1,300
	Kandos Cement Company	Kandos	600
	Charbon Cement Company	Kandos	400
	Commonwealth Portland Cement Company	Portland	300
	Roola Concrete Pipes	Bathurst	25
	Containers Ltd.	Bathurst	30
	Atel Futnirure Pty.Ltd.	Bathurst	100
	Pyne-Board	Oberon	200

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Industry	Company	Location	No.of Staff
Steel Fabrication etc.	Parkes Industries Pty.Ltd.	Parkes	70
	D. Normoyle and Co.Ltd.	Young	70
Clothing and Textiles	Berlei Ltd.	Lithgow	180
	Macquarie Worsteds Ltd.	Orange	180
	J. Robins (Bathurst) Ltd.	Bathurst	305
	Bonds (c)	Lithgow	180(est.)
Electricity Production and Supply.	Wallerawang Power Station (d)	Wallerawang	380
	Ophir County Council	Orange	98
	Hartley County Council	Lithgow	85
	Southern Mitchell County Council	Bathurst	93
	Ulan County Council	Gulgong	100
	South Western Slopes County Council	Young	60
	Central West County Council	Parkes	100
	Macquarie County Council	Dubbo	91
Other	Causmag Ore Pty. Ltd.	Young	40
	Hazelton Air Services	Cudal	50

NOTES: (a) Employment figures are to be taken as approximations only. The figures tend to vary at different points in time, and according to the source.

(b) Permanent employment is currently 350, although extensions to the plant that are under way will increase this figure to 500.

(c) Not due to commence operations till June 1967.

(d) Another power station is to be built in the area.

(iii) The smaller establishments involved in Secondary industry within the towns in the area are mainly light industries which service the local need. In certain cases, these establishments are reasonably large, for example, Motor Vehicle Repair and Service Establishments, local Steel Fabrication Establishments, although it is unlikely that they would employ many persons with Diploma level qualifications. (See Addendum, Appendix D).

(iv) The reasonably extensive range of localised industry surrounding most country towns indicates that market-orientated firms (that is, a firm whose location is dictated by proximity to the market) can exist profitably within country areas. However, the smallness of the country market restricts the size of any market-orientated form within the three regions.

The significance of proximity to raw materials depends on the relative cost of transporting the finished product, or the raw material, to the market area (the metropolitan area). However, it appears in the case of food processing companies that location near the raw material is profitable, and should agriculture, within the three regions, develop as suggested above, an expansion in the food processing industry might follow.

Other industries which might be developed on the above basis would include power generation (re coal mines), ore processing (re the Cobar Copper mines), and the production of Timber products (re forests in the Oberon-Bathurst area).

The availability of female labour within most country towns would be of assistance to certain industries such as Canning, Textiles, Clothing etc., should they be established (or expanded) in the three regions.

(v) The following table presents Census Statistics of employment in Secondary Industries within the three regions.

EMPLOYMENT IN SECONDARY INDUSTRIES, 1961

	Mitchell	Lachlan	Macquarie	TOTAL
Founding, Engineering, and Metalworking	2,397	297	192	2,886
Ships, Vehicles etc.	491	269	210	970
Clothing, Textiles, Boots, etc.	995	81	147	1,223
Food, Drink, Tobacco	1,075	784	534	2,393
Sawmilling and Wood Products	735	213	265	1,213
Other	1,597	332	338	2,267
Total				
Male	5,923	1,730	1,472	9,125
Female	1,367	246	214	1,827
Total	7,290	1,976	1,686	10,952

It is apparent that the main Secondary industries are located in the Mitchell region. The principal towns concerned are Bathurst, Orange and Lithgow, and the principal industries are Engineering, Founding, etc. (Emails, and the Commonwealth Small Arms Factory), Clothing, and Cement production, and Food Processing.

The relative importance of the Food, Drink and Tobacco Industries to the Lachlan and Macquarie regions reflects the limited extent of Secondary industry within those regions.

Tertiary industries

(i) In comparison to Secondary and Primary Industry Tertiary Industry employs the greatest number of persons within the three regions being examined. The principal tertiary industries are Retailing and Commerce, Building, Transport, Community and Business Services, and the Public Services.

The relative importance of tertiary industry within the Central West of the State (54% of total employment in 1961) reflects not only the service nature of the towns within the regions, but also the relative lack of secondary industry within the three regions.

EMPLOYMENT IN TERTIARY INDUSTRIES: 1961

	Mitchell	Lachlan	Macquarie	TOTAL
Building	3,081	2,503	2,846	8,430
Transport	2,508	1,496	1,244	5,250
Commerce	5,016	4,501	3,787	13,304
Community and Business Services	3,744	2,493	1,902	8,169
Amusements	2,173	1,889	1,732	5,794
Other	3,771	2,785	2,371	8,927
Total				
Male	14,356	11,070	9,958	35,376
Female	5,967	4,597	3,924	14,488
Total	20,323	15,667	13,882	49,872

SOURCE: 1961 Census Bulletin.

The classification of the above statistics is based on that provided by the Census documents. Unfortunately, the figures do not show retailing and public service employment as separate groups. It is apparent, however, that the retailing industry would account for a large proportion of the persons listed under Commerce. Figures of public service employment are provided in Part II of the Research Report, there being some 14,000 public servants employed by the three branches of Government in the three regions.

Although the 1966 Census figures showed a pronounced trend of a rising town population (and a declining rural population) it is thought that the service needs of a regional town must start to taper-off as the population of the surrounding region falls, so that the population of the town must eventually stabilise if it cannot obtain alternative avenues of employment which would normally take the form of secondary industries. However, it might appear that rural population could rise in the future, owing to the Burrendong and Wyangala Dams, so that in the long term, urban population could continue to rise.

An examination of each of the larger towns in the three regions reveals that the persons employed in tertiary industries are spread over a large number of employers, such that there are few large establishments within tertiary industry. Several large retailing establishments and certain Government Bodies would be the main exceptions to the generalization.

This situation contrasts with that of the metropolitan area, where most establishments have their policy sections, and large establishments would employ thousands of persons, often in the same building. The significance of the point is that there is less scope for Business Management courses, producing "Junior Executive" type persons, within the country, than there is in Sydney.

Banks and Insurance Companies are examples of establishments which would be interested in College diplomates at their Head Offices, but which would not be as interested in employing such persons at their country offices; these officers tend merely to serve the local needs only, and are not usually associated with much decentralization of administration.

Public Service employment encompasses the three levels of Government, and embraces a large range of Departments. Part II of my Research Report indicates that over 14,000 persons are employed by Commonwealth, State and Local (excluding County Councils) Governments, although it would also be generally valid to maintain that decentralization of administration is not carried out to any great extent within the State and Commonwealth Public Services.

(ii) The above table indicates that employment in Tertiary industries is fairly evenly spread between the three regions, having regard to the population of each region. It might appear that the difference between the proportion employed in Tertiary industries in Australia as a whole (60%) and the proportion so employed in the three regions (54%) is partly a measure of the relative lack of decentralised administration within Tertiary industry.

SUMMARY

(i) The overall picture of employment (and industry) in the three regions is provided by the following table:-

EMPLOYMENT

MITCHELL, LACHLAN AND MACQUARIE REGIONS: 1961

Region		Primary (a)	Secondary	Tertiary	Total
Mitchell	Number	9,132	7,290	20,323	36,745
	%	24.9	19.8	55.3	100.0
Lachlan	Number	12,780	1,976	15,667	30,423
	%	42.0	6.5	51.5	100.0
Macquarie	Number	10,315	1,686	13,882	25,883
	%	39.9	6.5	53.6	100.0
TOTAL	Number	32,227	10,952	49,872	93,051
	%	34.6	11.8	53.6	100.0

(a) Including Mining and Quarrying.

(ii) From the above table and from what has been said in section 3.0, it is apparent that the area should be divided into two parts.

Although the whole area is predominantly rural, the three large towns in the Mitchell region, namely, Lithgow, Bathurst and Orange and certain surrounding towns (Kandos, Wallerawang, etc.) constitute a more industrialised and more developed area than the remainder of the three regions.

On the other hand, the Lachlan and Macquarie regions are largely without secondary industry, and it might appear that future developments within these regions, will, in fact, be agricultural.

Hence, it is suggested that the more densely populated eastern sector with a community of interest of secondary industry and agriculture might be considered separately from the more sparsely populated, rural western sector.

ADDENDUM TO SECTION 3.0.

Whilst references were made in section 3.0 to foreseeable developments within the three regions, this addendum is concerned with possible long-term developments which might flow from the presence of a College of Advanced Education at Bathurst.

It is suggested that the College could have an effect on the area in different ways. It would be expected, for example, that it would have an advantageous effect on the cultural activities within Bathurst. By bringing up to fifteen hundred students and probably about one hundred members of academic staff to the town, it would be injecting quite a range of social influences that would, it is hoped, be stimulating to both the College and the community.

However, this section is concerned with the more tangible effects that the College might have on the development of the economic resources within the area. To do this, it is necessary to consider the presence of a College of Advanced Education within the context of the location decision of firms.

THE LOCATION DECISION OF FIRMS

There are often several over-riding factors determining the location of a firm. Traditionally, proximity to markets and proximity to raw materials are the main two such factors. In certain cases, these factors can be partly substituted by an efficient and cheap transport system which minimises the disadvantage of having to transport raw materials to the production site, and transporting the finished product to the market. The extent to which an efficient and cheap transport system would be utilized depends on the balance of other factors affecting the location of the firm. Such factors as an available work-force (which may or may not have to be skilled), economies of size, centralization of the policy-making unit, land costs, etc. are relevant in this regard.

Within the above framework it is easy to rationalise much of the present concentration of employment within the Sydney-Newcastle-Wollongong complex. This area is by far the largest market for most commodities. The availability of raw materials (including water and power) is the basis of much of the heavy industry in Newcastle and Wollongong. There is an extremely large labour-pool within the area, and in the case of many tertiary industries (namely, those requiring mainly "paper work", for example, Banks, Insurance Companies) economies of size are a substantial advantage, particularly with the development of computers.

It is also apparent that the spate of small establishments that invariably are located within a country town can be rationalised in the above terms. The country centre is viewed as a market, proximity to which is an advantage in the case of smaller service establishments, but not a sufficient advantage in the case of large manufacturing and tertiary industry establishments (except for certain retail establishments) where the economies of concentration are more important.

The location of a College of Advanced Education within a country town is unlikely to upset the present pattern of the location of industry. However, that is not to say that such a College could not contribute to the decentralization of industry to the area.

Discussions with civic leaders of the larger country towns which are attempting to attract industry, suggest that housing and educational facilities are important considerations to the Company Executive, who would be required to move to the country town.

Within the above context it is apparent that the location of a College of Advanced Education within a town would improve that town's chances of attracting new firms to the area. It is also true that surrounding towns could benefit in terms of having qualified personnel trained within the area who might be more prepared to live and work in the area. Such persons would improve the town's chances of inducing to the area those firms which require such qualified staff.

It was also suggested that existing firms would expand if qualified staff were more readily available within the country town. To the extent that the College can serve the local needs, it is apparent that some further development of the town's industry could follow from the College's establishment.

An initial expansion in the town would also follow from the establishment of a College within the town, as the College would bring staff and students to the area.

CONCLUSIONS:

The above arguments which suggest a College of Advanced Education would help to attract firms to the area must be placed in perspective and related to the location decision of firms. Whilst it is true that company executives are subject to non-pecuniary influences in decision-making, one cannot overlook the fundamental importance of the economic factors underlying the Company's location decision.

Whilst it is quite apparent that the location of a College of Advanced Education within a country town would only have the slightest marginal effect on the locational pattern of industry, it would be conceded that, once a firm has decided to take advantage of the Government's decentralization inducements, a town which has a College of Advanced Education would have an advantage, ceteris paribus, over other towns in attracting that firm.

The limited extent to which firms are currently moving to country towns might serve as a rough guide to the likely development that might occur in Bathurst should the College be established there.

4. EMPLOYMENT AND INDUSTRY IN THE BATHURST AREA

(i) In this section, attention is focused on the area within an approximate fifty mile radius of Bathurst. In comparison with any other area of a comparable size surrounding any other large town within the three regions being considered, the Bathurst region employs the greatest number of persons, not only in total, but also in each of the broad groups - Primary, Secondary and Tertiary Industry. (See table below)

The following table indicates the broad employment pattern in four local areas within the Mitchell, Lachlan and Macquarie regions. It is mentioned that the fifty mile radius is intended to reflect the approximate area from which daily commuting full-time students might be attracted. (A mileage figure applicable for evening students has not, as yet, been suggested).

EMPLOYMENT IN FOUR LOCAL AREAS: 1961

Area	Primary		Secondary		Tertiary		Total	
	Number	%	Number	%	Number	%	Number	%
Bathurst	[illegible]	22.2	6,704	21.6	17,405	56.2	30,981	100.0
Orange	6,543	25.3	3,793	14.5	15,557	60.2	25,983	100.0
Parkes	4,904	38.5	834	6.6	6,981	54.9	12,719	100.0
Dubbo	6,464	34.7	1,408	7.5	10,774	57.8	18,646	100.0

SOURCE: Census Bulletins.

Primary Industries

(i) Employment in primary industries within the Bathurst region is inflated by the presence of mining and quarrying, and to a lesser extent, by forestry, which are not carried on so extensively in other regions. The smaller sized holdings and the greater incidence of intensive-type farming are further reasons for the relatively high level of employment in primary industry in the Bathurst region.

(ii) The main types of primary industries in the Bathurst area are Sheep and Wheat farming, Grazing, Mining and Quarrying and Forestry. In 1961, over 5,000 persons were engaged in Sheep and Wheat farming; 1,240 in Mining and Quarrying, and 223 in Forestry. It is noted that employment in Forestry would have increased since 1961, owing to the expansion of the State Forests within the area.

In 1965/66, 3,768 persons were permanently engaged on the 3,978 holdings (of 20 acres or more) within the Bathurst area. The main activity of the holdings is sheep for wool and fat lamb purposes. It is interesting to note that more holdings run cattle than grow wheat in the Bathurst area. However, in the case of dairying, the area is not very important.

(iii) Both vegetable production and non-citrus orcharding involves over 10,000 acres, within the area. Vegetable production is spread more evenly throughout the area, whereas orcharding is located mainly in the Canobolas Shire, surrounding Orange, with Turon Shire being the only other area where orcharding is carried on to any great extent.

AGRICULTURAL STATISTICS:

BATHURST AREA: 1965/66	
Total number of holdings	3,976
Total area of holdings, '000 acres	3,041
Persons permanently engaged on holdings	3,768
Wages paid for seasonal and casual work(a),$'000 ..	1,783
Number of Holdings producing wheat	455
Number of Holdings producing sheep	2,471
Number of Holdings producing dairy cattle	45
Number of Holdings producing any cattle	1,302
Area under vegetable production, acres	10,813
Total non-citrus orchard (b), acres	10,036

SOURCE: Sydney Office, Commonwealth Bureau of Census and Statistics.

(a) Includes value of keep.

(b) For 1963/64 season.

(iv) The Forestry Commission has over a dozen State forests spread throughout the area, occupying an area of 195,044 acres. The Commission indicated that it will be planting softwood at the rate of 5,000 acres per. annum up to 1971, and that in the long-term, about 125,000 acres of softwood plantations will be established in the Bathurst district. It has been estimated that total employment associated with forests and dependant industries can be worked out on a ratio of thirty persons per 1,000 acres of forest.

The Forestry Commission also stated that,

> "The location of plantation areas of consequence in the district is such that the present industries have developed at Oberon, Orange, and at Wallerawang and Bathurst. Oberon appears destined to remain the most important timber industrial centre in the district."

(v) Mining and Quarrying are an important industry within the Bathurst area, the main centres being Lithgow (Blaxland Shire) for coal-mining, and Portland and Kandos for Quarrying. Increased mechanisation within the mines has replaced a large number of persons, although it has been suggested that the level of employment has tended to stabilise recently at about five hundred persons.

Secondary Industries

(i) The Bathurst area is the largest centre of secondary industry within the Mitchell, Lachlan and Macquarie regions. This is due to Bathurst being centrally located in relation to Lithgow and Orange, and Bathurst itself having several large firms engaged in secondary industries.

(ii) The main types of Secondary industry within the area are Founding, Food and Drink, Cement Production, and Clothing and Textiles.

At the time of the 1961 Census, there were 7,029 persons employed in secondary industry within the area; 2,368 within Founding, Engineering and Metal-working (1,126 at Orange and 902 at Lithgow), 995 in Food and Drink, 987 in Clothing and Textiles, and approximately 900 in Cement production within the Rylstone and Blaxland Shires.

EMPLOYMENT IN SECONDARY INDUSTRY:

	Bathurst		Lithgow		Orange		Surrounding Area		TOTAL	
	M	F	M	F	M	F	M	F	M	F
Founding, Engineering, and Metalworking.	78	12	946	180	778	124	203	47	2005	363
Ships, Vehicles etc.	241	3	76	2	82	2	43	3	442	10
Yarns, Textiles	8	2	46	49	76	107	5	7	135	165
Clothing, Knitted Goods, Boots, etc.	103	221	16	238	13	14	11	71	143	544
Food, Drink, Tobacco	294	93	52	5	254	22	239	26	849	146
Sawmilling and Wood Products	36	1	16	1	72	5	250	14	374	21
Paper Printing etc.	62	18	33	9	49	13	14	6	158	46
Other	90	9	35	2	110	11	1025	22	1260	43
Total	912	359	1220	486	1444	298	1790	195	5366	1338

SOURCE: 1961 Census Bulletin.

(iii) The structure of secondary industry within the Bathurst area is rather simple. There are several large establishments within each of the main classifications, and large numbers of small establishments, some of which would be little more than back-yard type enterprises. The larger firms would sell to the Sydney market in the main, whereas the smaller establishments sell mainly to the local market. There is not a well developed industrial complex in establishments; so that the larger establishments tend either to make their own component parts, or import these from Sydney.

(iv) The following factory statistics reflect the smallness of most of the factories in the area, as, despite the presence of large establishments like Email Ltd., Gordon Edgell Pty. Ltd., and the Commonwealth Small Arms Factory, the average number of workers per factory, in 1964/65, was only 18. However, this number contrasts with that for the Parkes and Dubbo areas, where the average number of workers per factory was only 5, there being an absence of larger establishments within those areas.

FACTORY STATISTICS: SELECT LOCAL AREAS: 1963/64 AND 1964/65

	Bathurst	Orange	Parkes	Dubbo
Number of Establishments				
1963/64 - Number	427	401	208	274
1964/65 - Number	440	416	209	286
Persons Employed				
1963/64 - Number	7,436	4,000	1,030	1,345
- Average per Factory	17	10	5	5
Persons Employed				
1964/65 - Number	7,756	4,374	1,060	1,439
- Average per Factory	18	11	5	5
Salaries and Wages Paid				
1963/64 - $'000	15,668	7,752	1,762	2,248
1964/65 - $'000	17,368	8,982	1,902	2,561

SOURCE: Commonwealth Bureau of Census and Statistics, New South Wales Factories in Local Government Areas and Statistical Divisions, 1964-65.

The larger firms in each of the Commonwealth Statistician's classifications of Secondary industry are as follows:-

Industry	Company	Location	No. of Staff
Founding, Engineering and Metalworking	Email Ltd.	Orange	1,400
	Commonwealth Small Arms Factory	Lithgow	1,300
Textiles	Macquarie Worsteds	Orange	180
Clothing, Boots, etc.	Robins	Bathurst	305
	Berlie	Lithgow	180
	Bonds (in June 1967)	Lithgow	180 (est)
Food, Drink	Edgell	Bathurst	350
	Barretts	Orange	90
	Tremain Brothers (Flour-millers)	Bathurst	45
	Blayney Abattoirs	Blayney	220
	Rodgers Meat Company	Orange	220
Sawmilling and Wood Products	Atel Furniture	Bathurst	100
	Pyne-board	Oberon	200
	Pat O'Leary	Kelso	60
Paper Printing etc.	Central Western Daily	Orange	50
	Western Advocate	Bathurst	44
	Mercury	Lithgow	
Other	Aust. Portland Cement Co.	Kandos	300
	Standard Portland Cement	Charbon	335
	Commonwealth Portland Cement Company	Portland	350
	Containers Ltd.	Bathurst	30

NOTE: Employment figures are current (that is, March 1967).

Tertiary Industries

(i) The main tertiary industries within the Bathurst area are building and construction, transport and storage, and commerce. Tertiary industries are larger in Bathurst and Orange than in Lithgow. The following table indicates the numbers employed in tertiary industry in the Bathurst area.

EMPLOYMENT IN TERTIARY INDUSTRY:

BATHURST AREA: 1961

	Male	Female	Total
Electricity, Gas, Water and Sanitary Services	799	34	833
Building and Construction	2,617	18	2,635
Transport and Storage	2,117	94	2,211
Communication	447	173	620
Finance and Property	362	169	531
Commerce	2,840	1,363	4,203
Public Authority (n.e.i.) and Defence Services	410	144	554
Community and Business Services (Including Professional)	1,386	1,889	3,275
Amusement, Hotels, etc.	821	1,001	1,822
Other and Indefinite	542	177	719
TOTAL TERTIARY	12,341	5,062	17,403

SOURCE: 1961 Census Bulletin.

(ii) Wallerawang Power Station, the Electricity Distribution County Councils and the local councils would be the main employers of persons classified, Electricity, Gas, Water and Sanitary Services.

Building and Construction involves a large range of tradesmen who would be employed mainly in small contracting firms. For example, in Orange there are 147 sub-contracting establishments within the building industry, employing less than 400 persons. There are also branches of the Commonwealth and State Departments of Public Works involved in the building industry in the area.

The Railways Department would be the largest employer in the Transport and Storage category, as it employs 350 to 550 persons in each of Lithgow, Bathurst and Orange. Road transport and storage would mainly involve private haulage contractors and local taxi and bus proprietors.

Finance and Property involved only 531 persons in 1961. Agents and representatives of finance companies together with Bank employees would comprise most of the persons within this group. As pointed out earlier, the smallness of the finance industry within the country area is in stark contrast to its size within the metropolitan area.

The largest category within tertiary industry is Commerce. This would involve mainly the retailing industry, which is one of the main functions of most country towns.

The structure of the retailing industry within the Bathurst area is slightly different from that for secondary industry, in that there are one or two large establishments, a range of medium size establishments, and a large number of small establishments.

Western Stores Ltd. is by far the largest single employer within the retailing industry. They have two stores within the Bathurst area, employing about 320 persons in total.

Woolworths and Coles have stores in the three main towns, employing 30 to 40 persons in each store. There are several other larger stores in each town, for example, Waltons, Fosseys, which would also employ 30 to 40 persons.

The remainder of the retailing establishments would be small stores within each of the smaller towns in the area, and small specialised (and general) stores within Bathurst, Orange and Lithgow. At the time of the 1962 Census of Retail Establishments, there were 213 retail establishments in Bathurst, 276 in Orange, and 182 in Lithgow, with an annual turnover of $12.3 million, $14.4 million, and $9.2 million, respectively.

STATISTICS OF RETAILING: SELECT LOCAL AREAS: 1961/62

	Number of Establishments	Annual Turnover	Average Turnover per Establishment
		$'000	$'000
Bathurst Area	1,011	45,486	45.0
Orange Area	914	40,112	43.9
Parkes Area	499	19,956	40.0
Dubbo Area	654	26,970	41.2

SOURCE: Census of Retail Establishments and Other Services. Year ended 30th June, 1962. Bulletin number 2 - New South Wales.

The Community and Business Services group includes Law and Order, Religion, Social Services, Health and Hospitals, Education etc., and so would involve a range of employers, including Government Bodies which will be discussed as part of the Public Service Group. Other persons within this would include Public Accountants, Architects, Solicitors, Doctors, etc. It is interesting to note that in Orange there are 16 such establishments (excluding Doctors and Dentists) which employ 107 persons, of whom 56 are females. (There are 33 Doctors in Orange; 13 Specialists, 13 General Practitioners, and 7 Institutional Medicos. There are 10 Dentists).

Of the 1,889 females in this group, it would appear that a large number would be stenographers or office staff. It is noted that stenographers and secretaries would be included within other categories of employment.

The table indicates that, of the 1,822 employed in the Hotels, Amusements etc. group, 1,001 are females, and only 821 are males.

Public Authority employment is shown partly as a "n.e.i." category so that the figures shown would understate the true level of Public Service employment within the area.

Within the Local Government branch, there are six Shire Councils, three Municipal Councils and five County Councils in the area, which, in total, employ over twelve hundred persons. These Local Government bodies employ, in total, approximately twenty-five Engineers, twenty qualified Clerks, several Accountants and Surveyors. Each Municipality has a Library which could employ at least one qualified Librarian. Of the County Councils in the area, two are concerned with electricity distribution, involving two hundred persons in total, and one is an Abattoir County Council (Blayney) employing two hundred and twenty persons.

SUMMARY

Employment in the Bathurst area totals almost 31,000 which is considerably greater than total employment in either of the Orange, Parkes or Dubbo areas.

Primary industries employ roundly 6,900 persons, of which 5,000 are engaged in farming and grazing and 1,240 in Mining and Quarrying. The diversity of Primary production within the Bathurst-Orange area would be greater than in the more western areas.

Secondary industries employ roundly 6,700 persons; about four industries (Founding, Food Processing, Timber Products and Mining and Cement Production) have obtained some size in the Orange-Bathurst-Lithgow area.

Tertiary industries employ 17,400, within a substantial array of Government Departments, Retailing, Distribution, Commercial and Service Establishments.

5. EMPLOYMENT AND INDUSTRY IN THE CENTRAL WESTERN SLOPES AREA

(i) The area being discussed in this section covers, broadly, the larger towns in the Lachlan and Macquarie regions, referred to earlier as "the more western towns".

From an economic viewpoint, the basis of affinity between these towns is their dependence on the surrounding rural industries, and the relative lack of secondary industry within the townships themselves.

As a digression, it is noted that, from a geographic viewpoint, the towns concerned are quite some distance apart. Dubbo to Parkes is 75 miles, and Parkes to Young is 94 miles. This would suggest that no one town amongst this group could serve as an educational centre for the whole group.

5.1 Primary Industry

(i) The importance of primary industry to this area hardly needs to be emphasised. In 1961, 42% and 39.9% of employment in the Lachlan and Macquarie regions respectively, were involved in primary industries. The absolute numbers in primary industry in these regions were 12,780 in Lachlan, and 10,315 in Macquarie. In interpreting these figures it should be borne in mind that the mining and quarrying industry is of little importance in the area, and that, in the case of the Lachlan, Forestry also is of little importance.

(ii) Wheat and Sheep farming and Grazing are the main primary pursuits in the two regions. In the cases of the Lachlan and Macquarie regions, about 90% of persons involved in primary industry are engaged in Sheep and Wheat farming or grazing. Within the Mitchell region, the figure would be somewhat less than 70%.

(iii) The following table presents figures of employment in primary industries for the areas within 50 miles of Dubbo and Parkes.

EMPLOYMENT IN PRIMARY INDUSTRIES: DUBBO AND PARKES AREAS: 1961

	Dubbo	Parkes
Mixed Farming	4,035	3,654
Grazing	2,058	1,115
Dairying, Pig and Poultry Farming, and Beekeeping	204	165
Forestry	124	41
Other (a)	43	29
	6,464	5,004

SOURCE: Census Bulletins.

(a) Fishing, Hunting and Trapping, and Mining and Quarrying.

(iv) From the above employment figures, it is apparent that primary producers in the Dubbo and Parkes areas are engaged in similar activities. This view is supported by the following figures of rural holdings within these areas:-

RURAL STATISTICS: DUBBO AND PARKES AREAS: 1965/66

	Dubbo	Parkes
Total Number of Holdings	3,015	2,568
Persons Permanently Engaged on Holdings	4,426	3,576
Holdings Producing Wheat		
Number	1,984	1,826
% of Total	65.8	71.1
Holdings Producing Sheep		
Number	2,667	2,222
% of Total	88.5	86.5
Holdings Producing Cattle		
Number	1,247	767
% of Total	41.4	29.9
Area of Vegetable and Orchard Production		
Acres	1,178	652

SOURCE: Sydney Office, Commonwealth Bureau of Census and Statistics.

(v) The marginal differences between the two areas appear to be that, relatively, wheat is slightly more important to the Parkes area, and that cattle are more important in the Dubbo area.

Although Parkes itself is not on the Lachlan River, it is apparent that both areas expect extensive agricultural developments to follow from the damming of the respective rivers that flow through each area. The Burrendong Dam on the Macquarie and the Wyangala Dam on the Lachlan should, within the next few years, provide the opportunity for irrigation developments on those rivers.

Although, in the long-term, these developments might result in certain secondary industries being established in these areas (such as food processing, and the assembly of agricultural equipment) it would appear that if these areas develop, the development will be an agricultural one.

It was recently announced that a large tract of land in the Warren area was sold to a cotton growing establishment, Auscott, and that it has also acquired water rights from the Water Conservation and Irrigation Commission. Should cotton growing prove to be a commercial proposition in the area, further development relating to the processing of cotton might be expected.

Secondary Industry.

(i) At the time of the 1961 Census, only 1,976 persons were employed in secondary industries in the Lachlan region, and only 1,686 employed in the Macquarie region. In each region, these figures represented only 6.5% of total employment within the region.

It appears that, within the Macquarie and Lachlan regions there are only several sizeable establishments engaged in secondary industry outside the Dubbo and Parkes areas; these include a Canning Factory (Edgells) at Cowra, and Sawmilling within the Coonabarabran Shire.

The Food, Drink and Tobacco classification is by far the largest in the two regions, as shown by the following table, but apart from two Abattoirs and several soft drink manufacturers, most of the persons engaged in the industry would be employed by the small establishments that service the needs of the towns in the area.

(ii) Within the Dubbo and Parkes areas, employment in secondary industries, as indicated by the 1961 Census, would be accounted for as follows:-

Founding, Engineering, etc.	range of smaller establishments within Dubbo, Wellington and Parkes, although in the case of Parkes, there is a relatively large Steel Fabrication establishment - Parkes Industries Pty. Ltd.
Ships, Vehicles, etc.	range of motor vehicle garages in the above towns.
Yarns, Textiles.	the textile firm which was located at Dubbo at the time of the 1961 Census has subsequently closed down.
Clothing, etc.	virtually non-existent.
Food, Drink and Tobacco	abattoirs at Dubbo and Forbes. A relatively large soft drink manufacturer at Dubbo.
Sawmilling and Wood Products	a construction firm at Dubbo
Paper and Printing	the local newspaper in each of the larger towns.

(Cont.....

Other	the Seven Seas Stamp Company in Dubbo, involved in the sorting and packaging of postage stamps to be sold to stamp collectors.

EMPLOYMENT IN SECONDARY INDUSTRY: LACHLAN AND MACQUARIE REGIONS

	Parkes Area	Lachlan Region	Dubbo Area	Macquarie Region
Founding, Engineering and Metalworking	137	297	173	192
Ships, Vehicles, etc.	126	269	175	210
Yarns, Textiles	4	7	80	81
Clothing, Boots, etc.	23	74	56	66
Food, Drink and Tobacco	324	784	473	534
Sawmilling and Wood Products	95	213	136	265
Paper, Printing	59	147	103	121
Other	66	185	212	217
TOTAL	834	1,976	1,408	1,686

SOURCE: 1961 Census Bulletin.

Whilst it is apparent from the above table that the Dubbo area entails most of the employment in secondary industry in the Macquarie region, this is not so evident in the case of the Parkes area in relation to the Lachlan region. Cowra, which has three hundred and fifty-five persons engaged in secondary industry, Young with two hundred and thirteen and the Shires of Bland (West Wyalong) with one hundred and forty-one and Boree with one hundred and thirty-four account mainly for the difference between the Parkes area figures and the Lachlan Region figures.

5.3 Tertiary Industry

(i) Within the Parkes and Dubbo areas, 55% and 58% respectively of persons employed were engaged in tertiary industry at the time of the 1961 Census. These percentages compare with 51.5% and 54%, respectively, for the Lachlan and Macquarie regions.

The main areas of employment within tertiary industry are Building and Construction, Commerce, Community and Business Services, Amusement, Hotels, etc., and Transport. It is suggested that Public Authority employment is relatively high within the area, but the Commonwealth Statistician does not segregate this item in his categories.

EMPLOYMENT IN TERTIARY INDUSTRY:

LACHLAN AND MACQUARIE REGIONS: 1961

	Parkes Area	Lachlan Region	Dubbo Area	Macquarie Region
Building and Construction	1,082	2,503	2,178	2,846
Transport and Storage	728	1,496	966	1,244
Finance and Property	278	574	372	460
Commerce	1,981	4,501	2,952	3,787
Community & Business Services	1,113	2,493	1,541	1,902
Amusement, Hotels, etc.	798	1,889	1,240	1,732
Communication	332	740	460	597
Electricity, Gas, Water, etc.	148	364	187	244
Public Authority (n.e.i.)	252	441	353	450
Other and Indefinite	269	666	523	620
TOTAL	6,981(a)	15,667(c)	10,774(b)	13,882(d)

SOURCE: 1961 Census Bulletin.

(a) of which 2,020 are females.

(b) of which 3,052 are females.

(c) of which 4,597 are females.

(d) of which 3,924 are females.

(ii) The pattern of tertiary industries within the Dubbo and Parkes areas largely follows the pattern of the Bathurst area, although the Commerce, Community and Business Services and the Amusement and Hotels, etc. categories would be relatively more important than in the case of the Bathurst area, and Transport, Finance and Property and the Public Authority relatively smaller. This modification in the pattern of tertiary industry in the Dubbo and Parkes areas suggests that the towns in those areas are smaller and perform a simpler range of economic functions.

It is also noted that the employment in the Building and Construction category within the Dubbo area is relatively higher than in the other areas examined. This could be due partly to the slightly faster population increase that the area had experienced up to 1961, and partly to the presence of private road and bridge construction companies, which undertake work which would normally be undertaken by Councils in other areas.

(iii) The presence of towns like Cowra and Young in the South-eastern part of the Lachlan region, which are not within the Parkes area, mainly account for the discrepancy between the figures for the Parkes area and the figures for the Lachlan region.

5.4 SUMMARY

(i) The Dubbo and Parkes areas are predominantly rural, in terms of employment, with both areas involved mainly in sheep and wheat farming and grazing, and that the Burrendong and Wyangala Dams could further develop the rural economy of these areas.

(ii) Tertiary industries in the Dubbo and Parkes areas, except for retailing, are not as well developed as compared with Bathurst and Orange, although Dubbo, as the main service town in the western part of the State, will probably grow quite rapidly as a centre of tertiary industry if the effects of the Burrendong Dam and the Cobar Mines are as great as they have been suggested.

(iii) Secondary industry, employing 2,662 persons, or 6.5% of total employment in the Lachlan and Macquarie regions, has yet to develop in these areas. However, it is mentioned that local civic leaders are taking positive steps to attract firms engaged in secondary industry to the area, and some success might be expected, particularly in the case of Dubbo.

6. CULTURAL ACTIVITIES

The information provided in this section has been obtained from the Survey of Cultural Activities in New South Wales undertaken by the Department of Education for the Advisory Committee for Cultural Grants.

The main cultural centre of the area appears to be Bathurst. This appears to be due to the superior facilities for Art Display and for Musical and Dramatic presentations, and to the influence of certain of the staff of the Teachers' College who are professionally qualified in the various fields of cultural activities. However, reference should be made to the Orange Arts Festival which was held in March, 1967, which involved all of the Cultural Groups in Orange (Art and Historical Displays, Musical and Dramatic Production, etc.) and other cultural groups from surrounding towns.

Throughout the area the main form of cultural activity relates to Dramatic Societies, there being about 20 such groups in the area. The number of societies with dual purposes (e.g. Dramatic/Musical Societies) makes it difficult to categorically state the numbers in each type of cultural group, but the following table should provide a reasonable guide to the relative popularity of each of the cultural groups in the area.

Cultural Activity.	Total for overall area*	Total number of members.
Drama	20	786
Bands	11	275
Historical	10	370
Discussion	7	92
Choral	6	255
Music	5 (a)	496
Art	4	118
Arts Council	4	341
Other	8	287

* figures for several towns within the three regions were not attached to the material provided by the Department.

(a) Includes the Bathurst Baroque Society (116 members), the Bathurst Society of Music and Arts (200 members) and the Grenfell Music Club, with 100 members.

The following is a more detailed statement of the cultural groups within the area being examined by the Committee.

Bathurst - Six Cultural Groups:-

(i) Carillon Theatrical Society, 150 members, major production in May, minor production in November, annual average audience of about 6,000;

(ii) Historical Society, 66 members, museum attendances in 1965/66, 5,000;

(iii) Naturalist Society, 42 members;

(iv) Eisteddfod Society, 70 members, annual presentation, audience of 5,000;

(v) Baroque Society, 116 members, 6 performances annually, audience of up to 500 per performance;

(vi) Bathurst Society of Music and Arts, 200 members.

Dubbo - Six Cultural Groups:-

(i) Dramatic Group, 25 members, performs 3 times each year, audiences of about 200;

(ii) Arts Council, 70 members, audiences range from 30 to 500;

(iii) Pipe Band, 35 members;

(iv) Town Band, 45 members, audiences up to 600;

(v) Dubbo Choristers, 30 members;

(vi) Historical Society, 20 members.

Forbes - Three Cultural Groups:-

(i) Music and Dramatic Society, 70-80 members, audiences of 500 per presentation;

(ii) Historical Society, 60 members;

(iii) Horticultural Society, 60 members, and Adult Education Groups.

Orange - Four Cultural Groups:-

(i) Historical Society, 32 members;

(ii) Dramatic Society, 51 members, two performances yearly, audiences of 250;

(iii) Bloomfield Theatrical Society, 88 members, three shows per two years, audiences of 1,600 to 2,000;

(iv) Choral Society, about 100 members, 3 performances per 2 years, audience of 2,000.

In addition, there is an Art Group in Orange, and in March this year the Orange Arts Festival was held. The Arts Festival involved all the Cultural Bodies in and around Orange and ran for several weeks.

Parkes -

(i) Parkes Branch of the Arts Council, 200 members, 4 performances per year, audiences of 200-600;

(ii) Musical and Dramatic Society, 100 members, audiences of 200-600;

(iii) Film Society, 40 members.

7. SURVEYS OF BATHURST, ORANGE AND DUBBO *

The following sections present information about the three largest cities within the area being examined by the Committee. Most of the material presented has been obtained from local representatives. I would like to emphasise that the Local Citizens' Committees at Bathurst and Orange, and Local Government leaders in those cities and in most country centres were involved in considerable time and effort to provide the information sought, and, although it is realised that they had their own interests to advance, their co-operation was of considerable assistance to the research project.

7.1 Brief Economic Survey of Bathurst: General

Location

(i) Bathurst is located on the Great Western Highway, 130 miles west of Sydney. Although the city is 2,200 feet above sea level, it is actually located in a slight valley on the western side of the Great Dividing Range.

Nature of City

(ii) At the time of the 1966 Census, Bathurst had a population of 17,220. The main area of employment of the city's people is in tertiary industries (almost 74% of employment was, in 1961, in tertiary industry) whereas primary industry is the main area of employment for people in the surrounding Shires (for example, about 67% of employment in the Turon Shire, for 1961, was in primary industry).

The setting of the city is unmistakeably rural, with undulating farm-lands surrounding the town. It is basically true that the city is a regional centre serving the surrounding rural areas. However, as the area being served by the town is relatively smaller than that being serviced by Orange and Dubbo, the commercial activity within Bathurst is at a slightly lower level than that of Orange and Dubbo.

In regard to secondary industry at Bathurst, whilst there are several reasonably large firms, namely, Gordon Edgells, J. Robins, and Atel Furniture, and there appears to be prospects for further large firms to establish there, it is a fact that there is no big industrial firm in Bathurst.

Access

(iii) As Bathurst is on both the main western rail and road links, it has good access from both the eastern and western sides. In fact, the Great Western Highway, the Olympic Way, and the Mitchell Highway fork at Bathurst, and both the Highways fork at points further west, such that persons driving from Sydney to almost any part of the three regions being examined must go through Bathurst. This point applies also to the rail system, which forks, initially, at Blayney.

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* Similar surveys were also carried out in Parkes and Forbes and the respective Councils provided valuable information and offered ready assistance.

Bathurst also has a direct air link with Sydney, as well as being linked with towns further west.

Commerce

(i) At the time of the 1962 Census of Retail Establishments there were 219 shops in Bathurst with retail sales amounting to $15.6 million in 1961/62. There are seven reasonably large retail establishments, each of which employ more than 30 persons.

(ii) The local branch of Western Stores is by far the largest Retail Establishment in Bathurst. It employs about 170 persons in fifty-two Departments of the Store.

Woolworths and Coles have stores in Bathurst employing approximately 40 and 30 persons respectively. Other chain stores represented in Bathurst include Waltons, employing about 40 persons, and Fosseys. The other larger retail establishments are specialist stores.

(iii) The following figures were obtained by the Bathurst Council and are presented below as a guide to the scope and extent of commercial businesses in Bathurst:-

No. of Businesses	Type of Business	No. of Staff	No. of Businesses	Type of Business	No. of Staff
16	Butchers	67	3	Sports Store	9
7	Caterers	67	5	Nurseries	10
1	Wool Shop	2	5	Newsagents	36
7	Wholesale Grocers etc.	74	22	Hotels and Motels	208
3	Timber Yards	66	4	Jewellers	19
3	Travel Agents	9	11	Dry Cleaners etc.	63
25	Grocers and General Stores	80	22	Milk Bars and Cafes	117
14	Clothing Stores	33	7	Agricultural Equipment Sales Depots	75
21	Hairdressers	52			
11	Oil and Petrol Depots	32			

(iv) The following figures of service and professional businesses were also provided by the Bathurst Council:-

No. of Businesses	Type of Business	No.of Staff	No.of Businesses	Type of Business	No.of Staff
27	Taxi-Cabs	58	4	Solicitors	38
6	Stock and Station Dealers	31	4	Medical Practices (9 Doctors) etc.	26
2	Air Charter Services	13	3	Optometrists	5
26	Service Stations	80	3	Specialists	3
1	Consultant Engineer	3	5	Dental Practices	25
1	Veterinary Surgeon	6	2	Architects	11
1	Surveyor	6	6	Accountants	48
31	Carrying Services	115	9	Pharmacists	48

It is noted that the range of medical personnel (Doctors, Dentists, etc.) in Bathurst is not as extensive as that in Orange, although the difference would not be too significant.

Saleyards are located at Bathurst and Blayney, both of which are quite large and had an estimated combined through-put of approximately half a million sheep and 40,000 cattle in 1966.

Employment in the Building and associated trades (Painters, Bricklayers, Electricians, etc.) amounts to over 300 persons.

(v) On figures supplied by the Bathurst Council, there are approximately 7 establishments employing 74 persons engaged in Wholesaling (Food items). This would suggest that wholesaling is more important in Orange and Dubbo.

(vi) The Finance Industry has a large range of representatives in Bathurst, although as in other larger towns, no one establishment has a large staff in the town. Each of the Banks are represented, although the total employment in all the Banks approximates only 110 persons. In the case of Insurance, there is a very large range of companies represented in Bathurst (by way of an agency), but only a few (7) have Offices in the town. There are 6 Stock and Station Agents in Bathurst, employing, in total, only 31 persons.

Industry

(i) Although by metropolitan standards, there is very little industry in Bathurst, the industry that is in Bathurst appears to be closely linked and fairly well integrated.

To cite several examples:- (1) Gordon Edgell's buy vegetables from local farmers for processing; and Containers Ltd. (cannister manufacturers) have established next to Edgells, so that the industry is self-sufficient to some degree; (2) Tremain Bros. flourmillers, process wheat grown in the area; Baker's Pride (Bathurst Bakeries) use the locally produced flour exclusively in the manufacturing of bread for the area; (3) There are a group of smaller companies involved broadly in the processing of local raw materials for example Tablelands Poultry, Rocla Pipes, Pioneer Ready Mixed Concrete, Western Blue Metal, L.H. McGill & Company (Quarry masters) Macquarie Sand and Gravel, and the Brickworks; (4) Pyneboard manufacture at Oberon which uses the locally produced timber; Pat O'Leary (timber mill); Timber Industries and Atel Furniture represent another complex of firms in the same line, but at different stages of production.

The only large manufacturing company in Bathurst not covered above is J. Robins (Bathurst) Pty. Ltd., a manufacturer of men's, women's and children's footwear, which employs approximately 305 persons.

There is also a number of smaller establishments in Bathurst not listed above; these include Ashelfords Cordial Factory, Tyre Service Companies, 10 Engineering establishments (total employment is only 28) Dairy Farmers Co-op., and the Western Advocate.

The following table indicates the numbers employed in each of the Commonwealth Statistician's classifications of Secondary Industry in Bathurst for 1961.

EMPLOYMENT IN SECONDARY INDUSTRY: BATHURST: 1961

	M	F	Total
Founding, Engineering & Metalworking	78	12	90
Ships, Vehicles, etc.	241	3	244
Yarns, Textiles	8	2	10
Clothing, Knitted Goods, Boots, etc.	103	221	324
Food, Drink, Tobacco	294	93	387
Sawmilling & Wood Products (a)	36	1	37
Paper, Printing, etc.	62	18	80
Other	90	9	99
TOTAL	912	359	1,271

SOURCE: 1961 Census Bulletin

(a) employment in this category in the Oberon Shire amounted to 163 persons (157 males) in 1961.

Agriculture

(i) Within the adjacent Turon Shire, in 1965/66 there were 452 rural holdings, on which 476 persons are permanently engaged. The main activity is sheep production, as there were 311 holdings so engaged in 1965/66, as compared with 112 holdings involved with cattle, and only 44 holdings producing wheat.

The Bathurst area is on the eastern fringe of the wheat belt, but is well located as regards sheep and cattle raising. Sheep are raised for both fat lamb and wool purposes.

Vegetable production involved over 1,400 acres in 1965/66 within Turon Shire. Asparagus, together with cauliflower and corn are the main produce grown. Orcharding involved almost 1,300 acres, with apples, peaches and pears being the main products.

Public Services

(i) Commonwealth Departments

There are five Commonwealth Departments represented in Bathurst. The Postmaster-General has 165 employees at its Regional Headquarters in Bathurst, and is by far the largest representative of the Commonwealth Departments in Bathurst. Other Commonwealth Departments represented in Bathurst are the Commonwealth Employment Service, Commonwealth Electoral Officer, the Army and the Department of Works, which has its Western Headquarters at Bathurst, employing about 40 persons.

(ii) State Departments

There are over twenty State Departments represented in Bathurst. The Railways Department would have the largest representation with a staff of about 530 engaged in the railway yards (service and maintenance staff), the diesel depot, and general railway activity. In fact, the Divisional Locomotive Superintendent is located at Bathurst, and it is understood that Bathurst will be the Western New South Wales depot for maintenance of diesels.

The Police Department has an Inspector and a staff of about 25 stationed at Bathurst. The Agricultural Department has an agricultural research station and an experimental farm at Bathurst, engaged mainly in fruit diseases. The Pastures Protection Board has a headquarters in Bathurst, serving an area of 2.6 million acres.

The Department of Education has its Headquarters for the Western Area Directorate located in Bathurst. The Department also has a number of schools in the area.

The Prisons Department has one of its prisons located at Bathurst. Petty Sessions and the Department of Justice have a staff of 6 persons in Bathurst.

The Department of Public Works has a staff of 40 to serve an area that is similar to the Mitchell, Lachlan and Macquarie Regions. The Department has two Engineers and one trainee, three Architects and three trainees, a Mechanical Inspector, four Clerks of Works, and a number of Clerical Workers. The Department has been involved in work on the second stage of the Fish River Dam at Oberon.

Other Departments that are represented in Bathurst are:- Soil Conservation, Lands, Housing Commission, Civil Defence, Public Health, the Valuer-General, Fisheries Department, Forestry Commission, Motor Transport Department, the Totalizator Agency Board, Child Welfare Department, and the Department of Technical Education.

Education Facilities

(ii) (a) There are seven independent schools and nine Departmental schools in Bathurst and the immediate surrounds. Six of these schools take pupils to Sixth Form - Bathurst High School, plus the Diocesan Catholic Girls High School, All Saints' College, St. Stanislaus College, Marsden School, and the Scots School. In 1967, school enrolments in Bathurst totalled 5,667.

Six of the independent schools have boarding facilities, and this year 1,500 students were accommodated.

The Bathurst Teachers College, with an enrolment of approximately 360 students, also provides residential accommodation, although a number of students are accommodated in the township. The Minister has announced that the Government intends to expand the student capacity at the Teachers College some time in the future.

Owing to the extent of residential facilities at the schools in Bathurst, students are drawn from many other centres and from overseas. In fact, students came from 186 different centres in the State, from five other countries, and twenty-five students came from Sydney.

Reference is made to the Glenroy School for sub-normal children and to the sheltered workshop.

Technical College

(ii) (b) There is a Technical College in Bathurst where mostly "trade" and "special" courses are offered. However, certificate courses are being conducted in Accountancy and Supervision, involving about 30 students. In 1966, the College had 8 full-time Teachers, in addition to 17 part-time and 3 visiting Teachers, and enrolments in all courses totalled over 1,000 students.

Library Service

(ii) (c) The City library has 32,000 books, of which 10,000 are adult fiction, 11,000 non-fiction and 11,000 children's books. The children's books are accommodated in a well-equipped library of their own.

Hospital Facilities

(ii) (d) There are two general hospitals in Bathurst, the Bathurst District Hospital and St. Vincent's Hospital, with 183 beds available for Medical, Surgical, Obstetric and Mediatric cases. Additional facilities include:-

(a) two full-time Departments of Radiology;
(b) one full-time Department of Pathology;
(c) one full-time Department of Physiotherapy;
(d) three Operating Theatres;
(e) a Recovery Ward with modern resuscitation and emergency equipment;
(f) a full-time Casualty Department;
(g) two part-time Pharmacy Departments;
(h) two Outpatient Departments, and
(i) a Blood Donor Panel.

There is a special hospital of 139 beds for the aged. This hospital has a full-time Department of Occupational Therapy, a Department of Clinic Photography, and a day-clinic in Rehabilitation. There is also a Geriatric Ward now in use at the Macquarie Homes.

The Bathurst Hospitals provide also training facilities for General Certificate Nurses, Nursing Aides, and Radiographers-in-training.

Most of the above services are offered to other hospitals throughout the area (Blayney, Oberon and Carcoar).

The hospitals have six Specialists and fourteen Honorary Medical Staff, of which seven hold higher and specialised degrees.

In all, the hospitals provide employment for 310 people. Total nursing staff is just over 170, of which 105 are nurses-in-training.

Local Government

(iii) The three branches of Local Government are located at Bathurst - The Municipal Council, two Shire Councils and two County Councils.

The Bathurst City Council employs 169 persons in its activities as a general purpose Council, administering water supply, sewerage system and gas trading funds. It has approximately fifty persons engaged in Administrative functions, including the Town Clerk, four Engineers and a Surveyor, two Health Inspectors, and a Librarian. Most of the other staff are engaged in outdoor activities.

The Turon Shire Council employs thirty-one persons and the Abercrombie Shire Council employs forty-four persons. Road works and general local Government functions are the main activities of these Shires.

The Upper Macquarie County Council is involved in the destruction of noxious weeds, and employs only four Inspectors and two labourers.

The Southern Mitchell County Council is involved in electricity distribution, employing 93 persons. It has a clerical staff of 13 (2 qualified Clerks) and a technical staff of 10 (3 qualified electrical engineers) together with Showroom and outdoor staff. It is estimated by the County Clerk that up to six persons could undertake an electrical engineering course (at least 2 at a Diploma level) and that a further 16 employees would undertake other courses at a trade or certificate level.

From the above details there is a total of 364 persons engaged in Local Government in the area.

Amusement, Recreation and Accommodation

Bathurst is well situated as regards recreational facilities, having a cinema and ten halls, in addition to three large halls with stages etc. which are suitable for live entertainment. It is about fifty miles from the Jenolan and Abercrombie caves, and being within thirty miles of the Blue Mountains would have a variety of land forms providing further scope for recreational activity.

Within the township, there is an extensive range of sporting facilities and sporting clubs. The Mount Panorama racing circuit is located on the fringe of the town and attracts large crowds from Sydney when races are held. The following sporting clubs are mentioned to give an idea of the extent of such activities in Bathurst:- Golf, Turf, Trotting, Aero, Bowling, Racing Drivers, Squash, Basketball, Hockey, Pony, Rifle, Chess, Rugby League, Rugby Union, Soccer, Cricket, Cycle, Athletics, Tennis, Marching Girls, Swimming, etc.

Other clubs in the town include a Leagues Club, with extensions presently being carried out, an R.S.L. Club, a Business Men's Club, three Bowling Clubs and a Golf Club.

Cultural Activities and Religious Institutions

There are two Cathedrals and about twenty Churches in Bathurst, representing various denominations. The Diocesan Centre for the Roman Catholic Church and for the Church of England, together with the divisional headquarters of the Salvation Army are located at Bathurst.

Bathurst is served by television and radio stations, at Orange, and by station 2BS in Bathurst itself. Each of the radio and television stations serves a wide area around Orange and Bathurst.

The cultural activities in Bathurst are comparatively extensive through its cultural groups for art, music, drama, concert work, light entertainment.

Possibly, an index of a city's cultural interest is its subscriptions to the A.B.C. subscription series concerts. In 1966, there were 859 permanent subscribers in Bathurst, which is third to Newcastle (1,186) and Wollongong (1,048) for provincial areas.

There will be ten recitals held in Bathurst this year, five to be held by the Baroque Society and the other five are the A.B.C's celebrity series. These recitals are made possible by the facilities in the town - Bathurst City Hall, and St. Stanislaus' Marble Hall.

The Bathurst Society of Music and Arts (B.S.M.A.) Player's Group has an extremely active dramatic society, having produced more than 45 plays since 1960. It has presented several radio plays and helped produce the first television play over Channel 8 at Orange. The B.S.M.A. itself is a central body unifying and stabilising the activities of several cultural groups: the Players' Group, Recorded Music Group, the Arts Group and the Junior Orchestra.

The B.S.M.A. has acted as an agent for the Arts Council of Australia, for the Elizabethan Theatre Trust, and for the Musica Vive Society. (The B.S.M.A. has provided me with a detailed statement of its activities since 1960).

The Bathurst Eisteddfod has, over the last twenty-two years, developed into one of the most important eisteddfods outside the metropolitan area. Over the twenty-two years it has been estimated that about 70,000 competitors have taken part, 45,000 individual entries had been received, and that about 600,000 people have attended the eisteddfod.

Owing to the historic nature of the town, there is an active historical society with a Historical Museum. The Society was formed in 1947 and the Museum opened in May 1961, although it moved to an alternate location in December 1964. It is understood that the Historical Society has an Archives collection, which would be sufficiently extensive to be a relevance to the proposed College.

Other clubs within the town include Rotary, Apex, Lions, Junior Chamber International, Inner Wheel, Quota, and numerous Church clubs.

It is noted that the Bathurst Council has an extensive range of pamphlets and booklets on various matters relating to Bathurst; this information is more extensive than any I found in each of the other towns I visited.

7.2 Brief Economic Survey of Orange

General

Location

(i) Orange is located on the Great Western Highway, 161 miles from Sydney (200 miles by rail) and is 2,846 feet above sea level.

Nature of City

(ii) The Municipality of Orange is 8.05 square miles, with a population of 21,000 as at 30th June 1966. However, the "Urban" population of Orange is 22,200 owing to Bloomfield Hospital being located outside the Municipality.

Orange is one of the few country cities to house large industry of any description. Email Ltd., a consumer appliance manufacturing company, employs approximately 1,400 persons. The company commenced operations in Orange in 1946, by taking over the munitions factory after the war.

However, Orange is also a large service centre for the surrounding area. It is only 35 miles west of Bathurst so that it serves mainly western areas. Parkes and Forbes are 63 miles and 84 miles, respectively, to the west of Orange, but neither of these towns would provide the range of services - retailing, wholesaling, Medical, Dental, etc., that are found in Orange. Thus, as a generalisation, Orange, and Dubbo (92 miles north of Orange) would be the two main service towns for the west of the State.

The significance of Email and the several other larger industrial employers in Orange is revealed by the 1961 employment figures which indicate that secondary employment accounts for nearly 25% of persons employed. Whilst this figure is low in comparison to Sydney, Newcastle and Wollongong, it is higher than that for any other western town, with the exception of Lithgow.

Even though tertiary employment is less than 70% of total employment in Orange, it involves almost 5,000 persons, which is the largest absolute number for any of the western towns.

Access

(iii) Orange is connected to Sydney by a direct air service, the Great Western Highway, and the main Western Railway line, which extends to Broken Hill and eventually to Adelaide and Perth. The railway also links with Dubbo (which further links with the north-east and north-west of the State), and the south-west via Blayney.

Commerce

(i) In 1961/62 Retail Sales in Orange amounted to $18.6 million, from 279 Retail Establishments. This reveals Orange as the largest commercial centre within the three regions. On the one hand, this is to be expected as Orange has the greatest population of any town, in the area, but on the other hand, this indicates that Orange's commercial establishments serve a fairly large area.

(ii) There are three large Department stores (total employment 247) within Orange, and fifty-two Mixed Businesses employing a total of 122 persons.

(iii) There is an extensive range of specialist stores within Orange, including twenty-three Clothing stores, employing 113, eight Hardware stores, ten Chemists, twenty-six Butchers, four Sports Stores, five Newsagents, six Furniture stores, six Jewellers and Watchmakers, six Shoe Repairers, eight Electrical Appliance Stores, six Grocers, and four Green Grocers.

(iv) The range of Service Establishments within Orange also reflects the regional nature of this City. There are twenty Hairdressers, eleven Dry Cleaners, six firms of Solicitors, six firms of Accountants, two Architects, two Surveyors, thirteen Specialists, thirteen General Practitioners, seven other Doctors attached to the Local Hospitals (including Bloomfield), ten Dentists, and it is expected to have one Dentist and two Dental Nurses to staff a proposed Dental Clinic which will probably be established at the New Infants School by June this year.

There is a large Bus Company with eleven buses, and six independent bus owners. In addition, there are thirty taxis, three taxi trucks and thirty-five Carriers and Cartage Contractors.

Other service establishments include a Travel Agent, fifteen Stock, Station and Real Estate Agents, three Photographic establishments, one full-time Catering service and six part-time catering establishments.

(v) Wholesaling is a reasonably significant activity within Orange, due to its location near the western part of the State. There are sixteen Wholesaling establishments employing a total of 130 persons.

Finance

(vi) Each of the eight cheque-paying Banks are represented in Orange, employing a total of 131 persons. Although there are forty-one Insurance, Assurance Companies and Societies in Orange, employment only amounts to 117 persons. There are also six Finance Companies employing 54 persons.

Although a total employment of about two thousand (1% of the population) within all types of Finance Companies would not be great by metropolitan standards, the numbers are substantial by country standards.

Industry

(i) At the present time there are only three major industrial firms in Orange, these being Email Ltd., Macquarie Worsteds Ltd., and Rodgers Meat Company. There does not appear to be any industry peculiar to the town, although Email Ltd. would be a large representative of the Nationwide Domestic Appliance Industry.

MAJOR INDUSTRIAL ESTABLISHMENTS, JANUARY 1967

Name	Activity	Male	Female	Total
Email Ltd.	Domestic Appliance Manufacturing	880	281	1,161 (a)
Rodgers Meat Company	Abattoir	270	17	287
Macquarie Worsteds Ltd.	Clothweavers	78	100	178
		1,228	398	1,626

(a) By March, 1967, the figure had risen to 1,400 at which it is expected to remain. This would increase employment by the above three firms to 1,865.

Light Industry

(ii) There is a spate of light industry serving the town and the surrounding area. The larger examples of such establishments include Barretts Frozen Foods, employing 42 persons, T.A. Barrett (Milk and Ice-Cream Factory), employing 50 persons, Seers and Swain Manufacturing Pty. Ltd., employing 35 persons, Motor Vehicle Repair Establishments - E.C. Cameron, employing 69 persons, Rural Motor Company, employing 33 persons, H.A. Thomas, employing 30 persons, several Printing Firms - A.H. Scarr, employing 24 persons, and the Central Western Daily, employing 50 persons, and several Sawmilling establishments - Crossmans, employing 24 persons, and Wangarrie employing 62 persons.

The following summary table of smaller firms engaged in Secondary Industries in Orange is based on data supplied by the Orange Council, and adopts the classifications used by the Council. The figures appear not to include firms in the Building Industry which would entail bricks, pipes and tile manufacturing establishments, as well as Builders, Joiners and Construction Firms.

ORANGE: SECONDARY INDUSTRIES:

NUMBER OF FIRMS AND EMPLOYMENT

as at 3rd November, 1966

Industry	No. of Firms	Male	Female	Total
Light Industry				
Founding, Engineering, Metalwork	19	105	13	118
Vehicles	18	230	21	251
Textiles, fibrous materials	2	12	-	12
Food, drink	9	91	21	112
Sawmilling, wood products	8	94	10	104
Paper, Printing	4	67	15	82
	60	599	80	679
Major Industry				
Email Ltd. (Engineering)	1	880	281	(a) 1,161
Macquarie Worsted (Textiles)	1	78	100	178
Rodgers Meat Company (Food)	1	270	17	287

Totals - All Secondary Industries, with 1961 figures in parenthesis*

Industry	Firms	Male	Female	Total
Founding, Engineering, Metalwork	20	985 (778)	294 (124)	1,279(902)
Vehicles	18	230 (82)	21 (2)	251(84)
Textiles, fibrous materials	3	90 (76)	100 (107)	190 (183)
Food, drink	10	361 (264)	38 (22)	399(286)
Sawmilling, wood products	8	94 (72)	10 (5)	104(77)
Paper, printing	4	67 (49)	15 (13)	82(62)
	63	1,827 (1,444)	478 (298)	2,305(1,742)

(a) In March 1967, employment was up to 1,400.

* Taken from the 1961 Census. Owing to slight differences in classification certain Census figures do not appear under any of the headings, but are included in the total.

It is noted that employment in Secondary Industry in Orange has increased over the five-year period (by 563) and that proportionately, the largest increase has been in female employment, 180 (64%) as compared with 383 (27.2%) for male employment. This appears to be due to increased female employment in the Engineering classification, probably at Email Ltd., the increase being 170 or 137.1%.

In addition to the above industrial firms, there are twenty-seven licenced Plumbers and Drainers and twenty-three licenced Electricians in Orange.

Agriculture

(i) Orange appears to accommodate the two main forms of Agricultural activity - the extensive type wheat/sheep Agriculture, and the intensive type vegetable/orchard Agriculture.

The following figures and brief points relate to the surrounding Canobolas Shire. Although figures for the 1965/66 season are available, figures for the 1963/64 season are used, owing to drought affecting the more recent seasons.

There are 816 rural holdings in Canobolas Shire with a total area of over 360,000 acres, although only 24,000 acres were utilised for crops and 88,000 acres for sewn grasses.

Extensive-type farming

(ii) The main grain crops grown are wheat (over 3,000 acres) and oats (7,000 acres) although with only 10,000 acres involved, neither are grown in very substantial quantities. In the case of wheat, the average per acre was 24.6 in 1963/64 which is relatively high. The yield per acre of oats was about seventeen.

There are 470,000 sheep in the Shire and 18,000 head of cattle. In both cases, the numbers are not large in comparison to Shires to the west of Canobolas, although those areas would not have the extent of other agricultural activities (over 3,000 acres of land is used to produce fruits and vegetables, etc. for human consumption) that Canobolas Shire has.

Intensive-type farming

(iii) Non-citrus fruit and vegetables are grown in far greater quantities in Canobolas Shire than in any Shire in the three regions. The main crops being apples (over one million bushels per annum) pears (¼ million bushels) peaches, cherries and peas.

Public Services

In common with most large country towns, a large number of Government Departments are located in Orange. There are several Commonwealth Departments and 17 State Departments represented in Orange.

(i) Of the Commonwealth Departments, the Postmaster-General's is the only department with a large number of staff in the town. However, it has been suggested in Appendix D that most of the staff of the Postmaster-General would not be interested in the proposed College of Advanced Education.

(ii) Several of the State Departments represented in Orange would appear to have staff that would have an interest in the proposed College. These would include Agriculture, with a staff of 27, of which 13 hold Agricultural Diplomas or equivalent qualifications; Conservation, with a staff of 8 (3 with Agriculture Diplomas); Lands, with a staff of 22, including four Surveyors, five Draftsmen and three cadet draftsmen; Child Welfare and Social Welfare, with a staff of about 26, the Electricity Commission with a staff of 126, and the Department of Education with 107 Teachers.

Other Departments represented in Orange and their staff are as follows:- Police (36); Justice (5); Motor Transport (3); Egg Board (14); Valuer-General (4); Main Roads (10); Public Works - Maintenance Department (71); Housing Commission (20); Labour and Industry (4).

Schools

(ii) (a) There are 4 State Primary Schools (Primary and Infants Departments) with a total of 2,515 pupils, 2 State Secondary Schools, with a total of 1,318 pupils, and 8 Non-State Schools with 1,012 secondary pupils and 1,341 pre-secondary pupils.

NOTE: SOURCE: Department of Education Term Returns, May, 1967.

Technical Education

(ii) (b) Orange is one of the Department's Regional Centres for Technical Education. The Orange Technical College currently has 1,400 students enrolled in the various courses, although only 124 are engaged in Certificate level courses, and there are no diploma courses offered at the College.

Adult Education

(ii) (c) The Department of Adult Education attached to Sydney University has a regional headquarters in Orange. It currently has over 1,400 students enrolled, as compared with 577 students in Bathurst.

Library Services

(ii) (d) Orange is the centre of Regional Library Service, serving about 42,000 persons.

Orange Base Hospital

(ii) (e) The Orange Hospital, with a staff of 164 (30 trained Sisters and 45 Nursing Trainees) was recommended by the Starr Committee as a possible regional Hospital. The Hospital is a regional training hospital and might provide students for the proposed College.

Bloomfield Hospital

(ii) (f) Bloomfield is a Psychiatric Hospital run by the Department of Public Health. It has a staff of 436 and contains a range of outdoor recreational facilities for the inmates, of which there are approximately 1,500.

Local Government

(iii) There are three branches of Local Government in Orange - The Orange City Council, with a staff of 189, including 4 Engineers and several qualified Town Clerks; the Canobolas Shire Council, with a staff of 64, including 2 Engineers and at least one qualified Shire Clerk; and the Ophir County Council, with a staff of 117. The Ophir County Council is engaged in Electricity Supply, and would probably employ several Engineers and qualified County Clerks. The Orange Council has a Gas Works employing 16 persons (these persons are included in the 189 above).

Amusement, Recreation and Accommodation

(i) There are two eighteen-hole Golf courses in Orange, numerous Bowling Clubs, a Leagues Club, Businessman's Club, numerous Youth Clubs, Sporting Clubs and Service Clubs.

There are two Theatres and six Dance Halls. There are 13 Football fields, and Cricket fields, 14 Tennis courts, 3 Squash Courts, an Olympic Pool and a lake suitable for swimming and boating.

(ii) From the accommodation point of view, there are 13 Hotels, employing 152 persons, 5 Motels, employing 44 persons, and seven Boarding Houses and Hostels.

Cultural and Religious Institutions

Orange has fifteen Churches, representing various denominations.

Cultural Societies include one Choral, one Art, one Horticultural, four Dramatic Art, and four Musical.

The cultural activities within Orange are fairly extensive, as to be expected in a City of 21,000 persons. However, the facilities within the City for cultural activities are inadequate, despite the recent construction of a large hall capable of holding 800 to 1,000 persons. The lack of cultural facilities contrasts with the position in Bathurst.

At the present time (March 1967) the Orange Arts Festival is in progress, involving most of the cultural societies in Orange, namely the Art Society, the Music and Dramatic Societies, etc. The standard of the festival is quite high and has attracted some of the State's leading exponents of the arts.

7.3 Brief Economic Survey of Dubbo : General

Location

(i) Dubbo is located on the Macquarie River, north-west of Sydney - 261 miles by road, 288 miles by rail and 190 miles (50 minutes) by air.

Nature of City

(ii) The City of Dubbo is 6.6 square miles in area, with a population of 15,568, as at the 1966 Census, and is 870 feet above sea level.

Broadly, Dubbo might be described as a "Service" City in that it services the north-western corner of the State. This is reflected in its large commercial centre (its retail sales of $16.1 million in 1961/62 being $0.4 million greater than retail sales in Bathurst) its extensive wholesaling concerns, its range of professional personnel - two architects, twelve accountants, ten specialist doctors, twelve general practitioners, thirteen solicitors, eight dentists, etc.; its regional saleyards - reported to be the second largest in the State (Homebush being the largest), the range and extent of public services; its Base Hospital (daily bed average of 140), Aged Persons Home (currently 94 patients), fourteen schools (2 high schools) about twenty State Government departments being represented in the city, and a local radio station.

Within Dubbo, nearly 80% of persons employed are engaged in tertiary industry, reflecting, one the one hand, the extent of service industries in the city and, on the other, the lack of large secondary industry in the city.

Access

(iii) Dubbo has a large airport capable of handling international jetliners with a thrice-daily service with Sydney. It has direct rail links to Sydney, the north-east and north-west sections of the State, but only an indirect link with the western part of the State (that is, Dubbo is linked with Broken Hill via Narromine and Parkes) although it is on a possible Brisbane/Melbourne rail link. The city is also well served by several highways (Newell and Mitchell Highways).

Commerce

(i) In 1961/62, Dubbo had 217 retail establishments with retail sales of $16.1 million during the year.

(ii) The city currently has seven department-type stores, namely, Western Stores (with about 150 employees), Marcus Clark's (75 employees), Woolworths (75 employees in two stores), Coles (about 75 employees in two stores), Waltons (25 employees), Fosseys (20 employees) and Permewan & Wright (50 employees).

(iii) Dubbo also has over two hundred smaller stores, including specialized stores such as, men's clothing (5 stores), toy shops (3), sports stores (3), butchers (15), etc., generalized grocery shops of which there are almost fifty, and service stations (almost 40). Many of the service stations would also be new and/or used car dealers (of which there are 11 and 30 respectively).

(iv) In the case of service organizations, Dubbo has eighteen barbers, twelve accountants, four shoe repairers, eight dentists, two professional consultants, one agriculturalist, one engineer, twenty electricians, thirteen solicitors, twenty two doctors (including ten specialists), two specialist caterers, two newspapers and four office equipment firms are represented in Dubbo.

The city has twenty one licenced public vehicles of which about twelve are taxis, two taxi trucks and seven buses, there being both an intra-city bus service and an inter-town service taking in Narromine, Gilgandra and Wellington.

Wholesaling

(v) The city has approximately thirty wholesaling businesses handling mainly foodstuffs, although such items as auto parts, building supplies, etc., are also covered. Employment by these wholesaling businesses totals about 290 persons. The extent of wholesaling and the area served by Dubbo is a further measure of the city's "service" nature.

In 1961, there were 1,246 persons employed in "commerce" within Dubbo.

Finance

(vi) Each of the major trading banks, except for the Bank of Adelaide, but including the Rural Bank of New South Wales, has at least one branch in Dubbo (the A. N. Z. having two branches). Employment by the banks totals 94 persons.

Nine insurance (and assurance) companies have offices in Dubbo and a further 84 companies are represented by either an agent or a salesman.

There are four finance companies represented in Dubbo, two by way of a branch office. There is also a share broker, fourteen stock and station agents and nine real estate agents.

In 1961, there were 176 persons employed in finance and property within Dubbo.

Industry

(i) At the present time, the City Abattoir is the only example of large industry in Dubbo although there is a spate of smaller concerns involved in light industry, designed to serve only local needs. However, the Council's Decentralization Committee is confident that larger industry is likely to come to the city in the near future.

The Abattoir currently employs about 270 persons and in 1966 killed thirty thousand cattle (beef), two hundred and ninety-two thousand sheep and over ninethousand pigs, although in 1964 (pre-drought) killings totalled forty one thousand beef, four hundred and sixteen thousand sheep and ten thousand pigs.

(ii) Light industry in Dubbo is as follows : six steel fabricators and light engineering firms employing 32 persons, including 5 technicians; there are several soft drink manufacturers employing about 60 persons in total; a dairy factory and ice works employing 12 persons; a stock food processing business employing 15 persons; a bacon and smallgoods business employing 30 persons; a flour mill employing about 20 persons; four firms engaged in sawmilling with one firm also engaged in construction employing 70 persons in both activities and the other three firms employing about 35 persons in total. Pre-cut furniture and joinery is a reasonably important activity with 17 builders and joiners in the town. There is also an aluminium fabrication business employing 12 persons engaged in joinery-type activity.

Apart from the construction firm referred to above there is another construction firm, employing 25 persons, in Dubbo.

Ready-Mix Concrete employs about 25 persons, Monier Pipes 10 persons, Super Crete Bricks 6 persons and two brickworks employ about 32 persons in total.

In the Dubbo region, the Councils employ private contractors to undertake sewerage works, curb and guttering and roadworks, etc. As a result, there are 6 civil engineering firms, employing 28 persons, in Dubbo, undertaking such work.

There are four printing firms in Dubbo, one of which prints the city's two newspapers, total employing being 70 persons.

In addition, the Seven Seas Stamp Company, which employs about 40 persons and is the largest company of its type in Australia, is located in Dubbo.

DUBBO INDUSTRY : JANUARY, 1967

Industry	Number of Businesses	Employment
Abattoir, Seven Seas Stamp Company	2	310
Food Processing, Soft Drinks, Dairy Factory, Flour Mill	6	140
Sawmilling (4), Joinery (17), Construction (2)	23	170
Bricks, Pipes (3), Concrete (2)	5	75
Engineering : Steel Fabrication (6), Civil (6)	12	60
Printing (4)	4	70
	44	825

Although the Commonwealth Statistician's classifications of secondary industry differ from those used above the following employment figures, relating to 1961, are provided for broad comparative purposes :

Industry	Male	Female	Total
Founding, Engineering and Metalworking	65	2	67
Ships, Vehicles, etc.	104	3	107
Yarns, Textiles, etc.	8	67	75
Clothing, Knitted Goods, Boots, etc.	17	25	42
Food, Drink, Tobacco	305	14	319
Sawmilling and Wood Products	53	-	53
Paper, Printing, etc.	37	18	55
Other	121	14	135
Total	710	143	853

Agriculture

(i) Dubbo is situated within the wheat/sheep area of New South Wales, with over 300 holdings out of a total of 562 holdings, within the surrounding Talbragar Shire, running sheep (with a total sheep population of 350,000 as at 31st March, 1966) and 250 holdings growing wheat (a total acreage of 67,000 as at 31st March, 1966). It is noted that sheep are run for both wool and fat lamb purposes. Oats is also an important crop within the Talbragar Shire, with 33,000 acres being grown in 1966. At present, asparagus is the only vegetable grown in substantial proportions but it appears that irrigation could significantly boost vegetable growing within the surrounding area.

Public Services

It is the usual pattern for large country towns to have regional offices (or officers) of quite a range of government departments. Certain departments are also actively engaged in the particular area, for example, Railways, Education, Conservation, etc., and, therefore, could be represented by quite a large number of personnel.

Commonwealth Departments

(i) Seven Commonwealth departments are represented in Dubbo. The Postmaster-General's Department has a divisional headquarters located there, employing about 172 persons. This Department has a Linesman Training Centre at Dubbo as well as carrying out its normal activities, such as, extending and servicing its lines in the area. The Commonwealth Employment Service and the Electoral Officer are also represented in Dubbo. The Department of Civil Aviation has a communications centre, employing 21 persons, and the RAAF has a stores depot, employing about 53 persons (40 civilians). The Commonwealth Department of Works is also represented in the area.

Total employment by Commonwealth departments in Dubbo would be approximately 275 persons.

State Government Departments

(ii) About 20 State departments are represented in Dubbo. The Railways Department would be the largest employer of all the State departments, with approximately 120 employees (mainly shunters, engine maintenance staff, fettlers, etc.). The Police Department has its headquarter for the Western Districts (with about 40 personnel) at Dubbo.

The remaining State departments are represented mainly by a few officers who are qualified in their respective fields. These Departments are : Agriculture, Labour and Industry, Soil Conservation, Forestry, Lands, Valuer General, Attorney General (District Courts), Surveyor General, Public Works, Transport (Motor Registry Office), Electricity Commission (sub-station), Housing Commission, Child Welfare, Aborigines Welfare Board and the Water Conservation and Irrigation Commission (mainly for Burrendong Dam and the development of bore water).

Schools

(ii)(a) There are two high schools in Dubbo, two private secondary schools, eight primary schools, one pre-school kindergarten and a school for subnormal children. Apparently, another high school is under consideration. There are currently 4,604 school pupils in Dubbo schools. The Education Department also has two inspectors and a careers adviser at Dubbo as well as 123 teachers.

Technical Education

(ii)(b) The Department of Technical Education has a college at Dubbo but does not offer Certificate level courses.

Dubbo Base Hospital

(ii)(c) The Dubbo Base Hospital has 118 nurses and a daily bed average of 140. It also has a T. B. bay. A geriatrics hospital has been attached to an aged people's home.

Total employment in State Departments within Dubbo would approximate 300 or 420 including the local hospital.

Local Government

(iii) The City Council employs a staff of about 60 persons, including 6 qualified personnel. The Council Gas Works employs about 10 persons. The Talbragar Shire employs approximately

36 persons (3 qualified) and the Macquarie County Council (electricity distribution) has a staff of approximately 200 persons with about 6 qualified staff.

As was pointed out above, the Councils in the area sub-contract their road-making, curb and guttering, etc. functions to private firms and so do not employ a large outdoor staff. However, employment by the three Local Government bodies in Dubbo (excluding the Abattoirs which was covered earlier) approximates 300 persons.

(iv) The City Library currently has 20,000 books of which 30% are adult non-fiction. The library has 5,600 registered borrowers with a daily average issue of books of 397 (119,000 per annum). A regional library has been recommended by the Library Board's Inspector and this development is under consideration although certain surrounding areas have not agreed to the proposal at this stage.

Amusement, Recreation, Accommodation

(i) Dubbo has an 18-hole golf course, four bowling clubs, a trotting track, race course and a dog track is being contemplated. The city has 65 sporting organizations, including a Police Boys Club an R. S. L. Youth Club, an Aero Club and Gliding Club.

Cricket facilities include three turf wickets and seven concrete pitches. These ovals double for football and soccer during the winter. Other sports that would use these facilities are athletics and hockey.

There are almost 50 tennis courts in Dubbo other than private courts. There are two squash courts and table tennis facilities. There is also a croquet green in Dubbo.

Other sporting organizations include rifle, gun and pistol clubs, and an archery club and also a cycle and motor bike club with their own tracks.

The Council has an olympic swimming pool and the R. S. L. Club (which has 2,500 members) has a heated pool. The R. S. L. Club is comparable to any Leagues Club in terms of facilities and members.

(ii) The Macquarie River offers swimming and boating facilities and the Burrendong Dam, situated about 20 miles out of Wellington, will offer (when filled) a complete range of aquatic sports. It is estimated that the Dam will eventually hold three times as much water as Sydney Harbour so it is apparent that it would be popular for sailing, skiing, and boating.

There is one picture theatre and a "Drive-In" is under construction. There are also six dance halls in Dubbo.

(iii) There are 12 hotels and 7 motels providing a total of 800 beds for overnight accommodation. At present schoolgirls' hostels accommodate 90 girls who attend school in Dubbo. School children from surrounding areas also board in private homes in the town.

Cultural and Religious Institutions

(i) There are sixteen churches in Dubbo representing the various denominations.

(ii) The main cultural societies are the Historical Society which meets fortnightly and has its own museum, and the Dubbo Arts Council which is a branch of the Arts Council of Australia. The first stage of the new Civic Centre includes a hall capable of holding an audience of 1,100 and would be able to cater for the larger productions of the Elizabethan Theatre Trust and the Sydney Symphonic Orchestra.

Other societies include a music club, two amateur theatrical societies and the Dubbo Education Association.

Proposed Developmental Schemes

Industrial

(i) Ansett-A. N. A. has purchased land adjacent to the Dubbo Aerodrome for the proposed establishment of an aircraft maintenance and repair workshop. It is contemplated that this establishment would employ 150-200 persons and that operations are likely to commence in June this year.

The Dubbo Council's Decentralization Committee is confident of securing several industrial concerns for Dubbo in the future, which would employ about 300 persons, and it would appear reasonable for Dubbo to expect further industrial developments in the future.

Agricultural

(ii) Auscott has purchased a large tract of land (approximately 10,000 acres) near Warren which it proposes to develop for cotton growing. A cotton gin would probably follow if the cotton growing proves successful.

Industry and Developments in the Surrounding Area

(iii) There are several research stations in the area, one at Trangie (Agriculture) and one at Wellington (Conservation).

The Cobar copper mines have been reopened and currently the ore is railed to Port Kembla for smelting. This has involved Dubbo, at least initially, in servicing the diesel engines used at the mines. However, Dubbo has put forward a case for the ore to be smelted at Dubbo owing to the availability of water, its proximity to the ore and the reduced transport costs of carrying the refined metal, as compared with carrying the ore.

However, as there are other factors involved, no certainty can be placed on this project eventuating.

Local Services

Dubbo had adequate water, sewerage, electricity and gas services for the domestic purposes of a larger population than its existing population and so could already cater for growth in its population provided the city grew in the right directions.

However, it appears that the Council would be involved in additional costs to provide these basic services for new industries (particularly canning and smelting) should these industries locate in Dubbo.

Climate

On the whole Dubbo has a warm climate with an all-year mean of 63°F and a mean maximum of 74°F and a mean minimum of 52°F. However, extremes normally range from over 100° in summer to below freezing point in winter.

Average rainfall is 21 inches with rain falling on an average of 72 days in the year. Rainfall tends to occur fairly evenly during the year, there being no pronounced wet or dry periods. The months August to October, inclusive, which have tended to be the driest months of the year, receive merely 30-40 points less on average than the monthly average rainfall.

ADDENDUM

EXISTING TERTIARY EDUCATIONAL FACILITIES AND THEIR UTILIZATION

Technical Education Facilities

There are ten technical colleges in the Mitchell, Lachlan and Macquarie Regions, although only six (Bathurst, Forbes, Lithgow, Mudgee, Orange and Parkes) offer courses at the certificate level. It is noted that there is a technical college at Katoom currently has fourteen students enrolled in the Accountancy Certificate course while Forbes has nineteen and Mudgee thirty.

The following table indicates the numbers enrolled in certificate courses at Bathurst, Lithgow and Orange Technical Colleges.

COURSE	STAGE	BATHURST		LITHGOW		ORANGE	
		1965	1966	1965	1966	1965	1966
Commerce -							
	I	17	29	24	29	24	47
Accountancy	II	-	-	9	9	-	-
Certificate	III	-	-	2	-	-	-
	IV	-	-	10	-	-	-
Total		17	29	45	38	24	47
Rural -							
Horticulture	I	-	-	-	-	-	13
Certificate	III	-	-	-	-	11	-
Total		-	-	-	-	11	13
Management -							
Supervision		-	(a)	11	-	8(b)	19
Management	I	-	-	-	-	5	-
	II	-	-	-	-	8(c)	9
Total		-	-	11	-	21	28

contd........

COURSE	STAGE	BATHURST		LITHGOW		ORANGE	
		1965	1966	1965	1966	1965	1966
Engineering -							
Electrical	I	-	-	12	11	19	-
	II	-	-	2	10	-	25
Total		-	-	14	21	19	25
Mechanical	I	-	-	17	17	-	23
	II	-	-	6	7	21	-
	III	-	-	7	4	-	22
	IV	-	-	4	10	22	-
Total		-	-	34	38	43	45
Coal Mining Certificate	I	-	-	1	1	-	-
	II	-	-	12	10	-	-
Post-Certificate		-	-	-	6	-	-
Coal Mining Surveyors	II	-	-	1	-	-	-
Total		-	-	14	17	-	-
Engineering and Mining Total		-	-	62	76	62	70
Certificate Enrolments Total		17	90	118	114	118	158

(a) Forty-eight were enrolled in an introductory course in 1966, thirty-one of whom enrolled in the Supervision Certificate course in 1967.

(b) In Stage II of the Supervision course.

(c) Two of the eight are undertaking courses from both Stages I and II.

SOURCE : New South Wales Department of Technical Education.

In addition to the colleges in the larger towns, the Department of Technical Education provides for correspondence study. In 1965, the Department had 362 correspondence students studying certificate level courses in an area approximating the three Regions being examined by the Committee. The following table indicates the numbers involved in each stage of the various courses being studied.

CORRESPONDENCE STUDY : 1965

Course	Stage	Blue Mountains and Central Western Slopes	Lachlan	Macquarie	Central West	T
Accountancy	I	32	59	69	27	187
	II	15	15	5	5	40
	III	9	3	7	8	27
	IV	2	2	2	4	10
Total		58	79	83	44	264
Post Certificate						
Costing		4	-	-	2	6
Secretarial		2	-	-	-	2
		64	79	83	46	272
Transport	I	3	-	3	2	8
Administration	II	-	-	1	-	1
Total - Commerce		67	79	87	48	281
Surveying	I	1	5	-	2	8
	II	-	-	1	1	2
	III	1	5	1	6	13
		2	10	2	9	23
Land and Engineering Survey Drafting	I	5	6	6	5	22
	II	2	3	-	1	6
	III	1	1	-	1	3
		8	10	6	7	31
Total - Engineering		10	20	8	16	54
Total - Health Inspection		5	7	5	10	27
Total - Correspondence		82	106	100	74	362

SOURCE : New South Wales Department of Technical Education.

Certain points emerge from an examination of the above tables :

(1) In the case of the Accountancy course, enrolments were boosted by the decision of the Australian Society of Accountants to discontinue its acceptance of the existing accountancy qualifying courses (except for appropriate university degrees) as from 1967. Those already enrolled in the technical college course (and other equivalent courses) were given the opportunity to complete these courses. The number enrolled in stage I of Accountancy at the technical colleges in the area increased from 108 in 1965 to 154 in 1966.

(2) A very low proportion of accountancy students pass first year. In 1965, out of a total of 394 accountancy students in the area (students attending college plus correspondence students) 295 (almost 75%) were in the first year of the course.

(3) As regards likely students for a diploma course in accountancy, should such be acceptable by the Australian Society of Accountants, it is relevant to note that there were 114 accountancy students enrolled at Bathurst, Orange and Lithgow Technical Colleges in 1966, of whom 105 were in First Year. This compares with 86 students in 1965, of whom 65 were in Stage I. The facility within the technical college for students to constantly repeat subjects inflates the figures when they are being examined from the point of view of a college of advanced education where such a facility is unlikely to exist. It is noted that the Intermediate Certificate (now School Certificate) is the minimum entrance requirement in the technical college for accountancy students and as this also will not apply in a college of advanced education, the figures would have to be reduced further. It might be reasonable to think in terms of an initial enrolment of about 40-50 annually for a part-time accountancy course, with enrolments in subsequent years falling to near 20-30 students. However, the number likely to undertake a correspondence course in accountancy from the college would probably be much larger as it could serve not only the rest of the Central West but also the rest of the State. (This view was confirmed by Mr. James, State Registrar, Australian Society of Accountants, although he understood that the Department of Technical Education would eventually offer the diploma course in commerce at country colleges and that the other universities in New South Wales would develop appropriate degree courses in accountancy so that other institutions would be expanding their facilities for accountancy students.)

(4) Total enrolment figures in each course for the overall area in 1965 are indicated in the following table (the number enrolled in Stage I of each course is shown in brackets) :-

Course	Oral students	Correspondence students	Total
Accountancy	130 (108)	264 (187)	394 (295)
Mechanical Engineering	77 (17)	- (-)	77 (17)
Electrical Engineering	33 (31)	- (-)	33 (31)
Management	13 (5)	- (-)	13 (5)
Horticulture	11 (-)	- (-)	11 (-)
Supervision	19 (11)	- (-)	19 (11)
Surveying and Land and Engineering Survey Drafting	- (-)	54 (30)	54 (30)
Coal Mining	14 (1)	- (-)	14 (1)
Other [(a)]	- (-)	17 (8)	17 (8)
Totals	297 (173)	335 (225)	632 (398)

(a) Transport, Administration and Post-Certificate Accountancy.

It appears that the Mechanical and Electrical Engineering courses are the only well-developed certificate courses in terms of numbers in advanced stages of the course, within the area, and these courses are only offered at Orange and Lithgow.

The Accountancy Certificate course will eventually cease, although the numbers prepared to attempt the course (both at the technical colleges and by correspondence) suggest there may be scope for that course at the college of advanced education should the course be acceptable to the Australian Society of Accountants.

APPENDIX D

RESEARCH REPORT - PART II

By

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NEEDS OF EMPLOYERS

IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS

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1.0 INTRODUCTION

This section attempts to provide a broad outline of the present employment needs in relation to tertiary qualified staff, in both the three Regions (1) concerned, and in the Bathurst area. The approach has been to obtain an idea of the overall employment position, in terms of numbers within the area and to supplement this with a more specific idea of the employment position and employment policies of the larger concerns in the area.

Whilst likely student numbers were always discussed and kept very much in mind, it seemed to me to be inappropriate to attempt to obtain reasonably precise data on this matter at this stage. A list of all the employers who were contacted is provided so that further discussion can be conducted with employers at a later stage when the Committee's (or the college council's) views on likely courses and likely programmes have crystallized.

The information provided in this section has been obtained, in the main, from questionnaire surveys of :

(a) Local Government bodies,

(b) State and Commonwealth Public Services, and

(c) private employers in the area.

At this stage, replies have been received from :

(a) 38 out of the 43 Shire and Municipal Councils in the area,

(b) all of the State and Commonwealth departments contacted, and

(c) 29 out of the 38 larger employers, including the 9 County Councils to which questionnaires were sent.

In the case of certain larger employers, information was obtained from interviews with senior personnel. A more complete picture of the firm's employment position has thereby been obtained and has resulted in more detailed comment.

In addition to the above surveys, local press throughout the overall area published a copy of the questionnaire sent to employers, together with a request for employers not contacted directly to forward the information requested in the questionnaire.

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(1) As in Part I of the Research Report, the area being examined by the Committee (the Mitchell, Lachlan and Macquarie Regions), has been frequently referred to throughout this Part as the "Central West" of the State.

Whilst almost all of the information furnished by private employers and local Councils appears to be reasonably correct, I cannot guarantee the figures reproduced here. Conservatively rounding the figures should provide sufficient coverage for inaccuracies particularly if the figures are looked upon only as a guide to the needs of employers in the regions.

Reference is made to the present tertiary educational facilities serving the Central West of this State and to their utilization. It is apparent that the facilities, being mainly technical colleges in the larger towns, do not offer an elaborate array of courses, nor is there a strong demand numerically for a wide range of courses. However, the proposed college of advanced education would be offering courses at a higher level than those which are offered by the technical colleges in the country towns and the proposed college might not rely purely on local students.

The main areas of study at the certificate level presently being undertaken in the Central West are : accountancy (throughout the whole area), engineering - electrical and mechanical (Lithgow and Orange), mining and engineering (Lithgow) and surveying (throughout the whole area) by correspondence.

2.0 PUBLIC SERVICES

2.1 Commonwealth Public Service -

There are approximately 1,844 Commonwealth public servants in the Central West of the State (1) of whom only 16 (or 1%) have a tertiary qualification (2); only 21 (1%) are currently studying for a tertiary qualification, and only 82 (4.4%) have the Leaving Certificate or its equivalent. Whilst not knowing what the average percentage is of Commonwealth public servants holding a tertiary qualification or their Leaving Certificate, it would appear that these percentages are low. However, as the Postmaster-General's Department accounts for 1,639 of the 1,844 Commonwealth public servants in the area, it might not be appropriate to compare the above figures to those for the Commonwealth Public Service as a whole.

The other Commonwealth Departments in the area are : Labour and National Service (22 persons), Civil Aviation (22 persons), Works (110 persons) and Social Services (51 persons).

The staff of the Postmaster-General's Department is well spread throughout the three regions and the Bathurst area accounts for only 422 of the 1,639 members of staff. In total there are 570 Commonwealth public servants in the Bathurst area, of whom 7 (about 1%) have tertiary qualifications and 44 (7.7%) have the Leaving Certificate.

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(1) The Commonwealth Small Arms Factory, which comes under the jurisdiction of the Department of Supply, is not included in this section. It is included in a later section because of its similarity to Email Ltd.

(2) Refers to degree or diploma qualification or their equivalents.

Broadly, the Departments referred to suggested that the present employment needs were being catered for by existing institutions or by in-service training schemes. However, Mr. F. C. Grey, Commonwealth Public Service Inspector, commented in a covering letter as follows :

> "I think that the availability of higher education in country centres may be of assistance to us in recruiting young people who have passed the Higher School Certificate Examination and who otherwise might feel that they have to come to Sydney for their further education; to this extent, the proposed development in country centres of Colleges of Advanced Education could be helpful to us."

Postmaster-General's Department -

The Postmaster-General's Department advised that most of their staff in the area are linesmen and technicians who are lowly classified and their training is appropriately carried out in the Department's technical training schools. Supervisory skills are required by the postmasters (94) and supervising technicians (41) in the area, but the Department's Post Office Administration Certificate course, supplemented by specific short courses, is adequate. Professional staff (engineers and administrators) are only employed at the regional headquarters at Bathurst, Dubbo and Parkes and their training is done either at university or by in-service training courses.

Whilst it might be unwise to differ in opinion with the Director of Posts and Telegraphs (Mr. T. H. Skleton) on the above subject, it would seem to me that Mr. Grey's comments might be accepted, particularly in relation to the supervisory staff in the area. They would seem to me to be prospective students for any appropriate part-time courses that the college might offer. However, the numbers involved might not be great - possibly, 5-10 per annum.

Other Departments -

The Commonwealth Departments of Works and Social Services have, in the Bathurst area, limited staff who would appear to be likely students for courses in administration and social sciences.

COMMONWEALTH PUBLIC SERVICE

EMPLOYMENT IN CENTRAL WESTERN NEW SOUTH WALES *

Department	Total Number Employed	Number with Tertiary Qualification	Number undertaking Tertiary Courses	Number with Leaving Certificate	Number likely to undertake Tertiary Courses
1. **P. M. G.**					
Bathurst	165	5	6	18	n. i.
Orange	136	-	1	2	n. i.
Lithgow	70	-	-	-	n. i.
Blayney	31	-	1	-	n. i.
Oberon	20	-	-	-	n. i.
Total - Bathurst Area (approx.)	422	5	8	20	n. i.
Total - Mitchell Region	622	6	8	23	n. i.
Total - Lachlan Region	538	4	9	13	n. i.
Total - Macquarie Region	479	4	3	14	n. i.
Total - Three Regions	1, 639	14	20	50	n. i.
2. **Labour and National Service**					
Bathurst	3	-	-	1	-
Lithgow	3	-	1	1	-
Orange	3	-	-	1	1
Total - (Bathurst Area (Mitchell Region	9	-	1	3	1

Department	Total Number Employed	Number with Tertiary Qualification	Number undertaking Tertiary Courses	Number with Leaving Certificate	Number likely to undertake Tertiary Courses
3. Civil Aviation (a)					
Orange	1	-	-	-	-
Dubbo	21	-	-	-	-
Total - Three Regions	22	-	-	-	-
4. Department of Works					
Bathurst	46	2	-	6	3
Lithgow	41	-	-	-	-
Total - (Bathurst Area (Mitchell Region	87	2	-	6	3
Dubbo	23	-	-	-	-
Total - Three Regions	110	2	-	6	3
5. Department of Social Services					
Lithgow	22	-	-	7	2
Orange	29	-	-	8	2
Total -	51	-	-	15	4
All Departments					
Totals - (Bathurst Area	570	7	9	44	8 (b)
(Mitchell Region	770	8	9	47	8 (b)
(Three Regions	1, 844	16	21	82	11 (b)

*	Excluding the Commonwealth Small Arms Factory.
(a)	None at Bathurst, Lithgow.
(b)	P. M. G. did not indicate numbers likely to undertake tertiary courses.
n. i.	Not indicated.

2.2 State Public Service

In total, there are about twenty-five departments with officers in the Central Western area of the State. Collectively, the departments employ just under 10,000 persons of whom approximately 1,963 (or 20%) hold the Leaving Certificate. However, only 664 (or 7%) presently hold tertiary qualifications and about 198 persons (2%) are undertaking tertiary courses. The number of persons likely to undertake tertiary courses, as suggested by the various departments, totalled 720 persons (or about 7%).

Within the Bathurst area, there are about 4,400 State public servants, of whom about 700 (16%) hold the Leaving Certificate. Most of these people are employed in the three larger cities in the area; roundly, 1,270 at Bathurst (212 or 16% with the Leaving Certificate), 1,380 at Lithgow (160 or 11% with the Leaving Certificate) and 1,410 at Orange (200 or 14% with the Leaving Certificate).

Whilst it is realized that overall percentages tend to hide the specific trends within the component parts, the figures of public servants holding the Leaving Certificate have been provided as a broad guide to the relationship between overall staff numbers and the number that could (as distinct from those who cannot) undertake college courses. It is noted that the proportion completing secondary schooling is increasing and that this trend should increase the percentage of public servants who have successfully completed secondary schooling.

There are three Departments with a relatively large number of persons employed in the area : Railways (roundly 3,200 persons), Education (1,500) and the Hospitals Commission employing 2,600 persons in hospitals in the area. Each of these departments has distinctly peculiar employment positions, which would have an effect on the overall employment pattern as concerns the emphasis on tertiary qualified staff.

Railways Department -

The Railways Department employs 3,175 persons in the Central West of the State, of whom 475 are administrative and clerical staff, 171 are tradesmen, 228 are juniors and apprentices and the remainder (2,301) are unskilled adult employees.

The Department has two District Superintendents in the Central West (at Lithgow and Orange), three Division Engineers and seven District Locomotive Engineers located throughout the three regions. These persons are responsible for the functioning of the traffic in their areas, for the maintenance of the permanent-way and structures within their areas, and for the functioning of Mechanical Branch activities in the depots under their control respectively. This information is provided in relation to the point that there are qualified and responsible persons in the area and that, in my assessment, a limited number of persons within the Department would be interested in tertiary level courses.

However, the Department's view is less optimistic and concludes -

> "It is considered that the proposed College would have no effect on employment in country railway offices."

Within the Bathurst area, the Department employs 1,600 persons, 275 of whom are administrative and clerical staff. Bathurst with 532 employees, Lithgow with 566 and Orange with 366 employees, are relatively important centres as regards the Department of Railways. Possibly the Department might be further consulted so as to ascertain a more lucid statement of their employment position.

Department of Education -

The Department of Education employs over 1,402 teachers in the Central West of the State and has an administrative staff of 87, together with a teachers college with 35 lecturers at Bathurst. The number of staff with tertiary qualifications employed by the Department of Education (namely 23%) is significantly higher than average and 1,433 of the 1,489 persons employed in the area hold their Leaving Certificate.

The Department has an Area Office at Bathurst which controls an area similar to the three Regions under investigation. Within the Bathurst area the Department employs 522 persons (mainly teachers) of whom 495 have their Leaving Certificate.

It would seem possible that non-graduate teachers in the area might be potential part-time or correspondence students for the college of advanced education. The Department tentatively suggested that 10% might be taken as a guide to the likely demand for tertiary courses by non-graduate staff.

Hospitals Commission

Details of employment in hospitals throughout the area were obtained from the Hospitals Commission. There are approximately 2,600 persons employed in hospitals in the area, of whom about 107 (or 4%) have tertiary qualifications and a further 30 are undertaking tertiary qualifications. Although only 165 persons (or 5%) employed in these hospitals hold their Leaving Certificate, 246 (or 8%) persons were indicated as prospective students for tertiary level courses.

Within the Bathurst area, 723 are employed in hospitals, 56 of whom hold the Leaving Certificate (8%) and 157 were indicated as likely students for tertiary level courses. For purposes related to the proposed college, it might be reasonable to think in terms of about 50 hospital employees in the area as an initial intake for appropriate courses at the proposed college, but this number would decline in subsequent years. Further discussions would need to be held with the hospitals in the area to more closely define suitable courses and numbers involved.

The Commission did not consider the possibility of "semi-professional" (or professional) training for nurses who have successfully completed their secondary schooling in commenting on the likely effects of the college on employment in the area :-

> "It is difficult to express an opinion as to the effect which the College would have on employment in country hospitals because, apart from nurses who receive their training at their employing hospitals the need by country hospitals for staff educated to a tertiary level would be comparatively small and confined mainly to key personnel, such as senior administrative staff, radiographers, pathology technicians, therapists, engineers, etc., at the medium to larger sized hospitals."

Department of Public Health -

The Department of Public Health employs approximately 467 persons in the area, most of whom are employed at the psychiatric hospital at Orange, with smaller numbers employed in the Baby Health Centres throughout the area and at the headquarters of the Western Health District at Bathurst. Only 22 persons (5%) hold the Leaving Certificate. The Department suggests :

> "Provided that courses are offered in the medical, para-medical and post-graduate nursing fields, it is estimated that at least 15 employees would be interested in undertaking either full or part-time tertiary studies - Bathurst (1), Orange (14)."

Possibly, the number interested each year in such courses would be lower than the fifteen indicated.

Electricity Commission -

The Electricity Commission employs about 600 persons in the Central West, most of whom are located at the Power Station at Wallerawang and at the Regional Headquarters at Orange. The remainder of the staff in the area (about 50) are employed throughout the three Regions for inspection and maintenance of transmission lines and sub-stations.

About 7% of the Commission's employees (40 persons) hold the Leaving Certificate, of whom the Commission suggests about 10 would be interested in part-time courses. The Commission also indicated that it has training schemes for school leavers which involve sponsorship for both full and part-time studies at universities and it would extend such schemes to the western area. In addition, it would be prepared to provide practical training for a limited number of full-time students during vacation periods. Employees, with the exception of about 50, would be located in the Bathurst area.

Prisons Department -

The Department of Prisons has a penal establishment at Bathurst and afforestation camps at Lithgow and Oberon, in which about 110 persons are employed. The Department suggests that a College in the area would attract a limited number of its staff to appropriate courses and might widen the inmate (prisoner) educational opportunities.

Management, Supervision, Criminology and Penology were suggested as courses in which officers would be interested. The Department also suggested that prisons might provide a facility for general courses in social work and for advanced psychological studies.

Attorney General's Department -

Whilst the Department of the Attorney General and of Justice employs only 53 persons in the Central West of the State, 44 hold the Leaving Certificate, 22 are completing either the Solicitors or Barristers Admission Boards examinations and 3 have completed such courses. Within the Bathurst area, the Department employs 17 persons, of whom 14 hold the Leaving Certificate, 5 are completing legal courses and 2 already possess legal qualifications.

The staff in the Central West are mainly in the Petty Sessions Branch of the Department and their main functions relate to the implementation of certain legal processes. Officers are encouraged to undertake the Solicitors Admission Board or Barristers Admission Board courses as such qualifications are required for progression to the more senior grades. The post-graduate Diploma of Criminology course is offered at Sydney University and is also of value to Petty Sessions Officers.

The Department expresses the view that the present tertiary facilities are adequate for its needs.

Forestry Commission -

The Forestry Commission currently employs 67 persons in the area, of whom 29 have their Leaving Certificate and are either studying for a tertiary qualification or already hold a tertiary qualification. Within the Bathurst area, 37 persons only are employed but the Commission has indicated that its level of employment will rise substantially in the next four to five years.

Department of Agriculture -

The Department of Agriculture employs approximately 217 persons in the Central West of the State, 58 (27%) of whom have the Leaving Certificate and 73 hold degrees or diplomas. Within the Bathurst area, 68 persons are employed.

The Department indicated that about 30 persons would be interested in part-time courses, about 25 are interested in external courses and several others are interested in full-time study.

It is noted that the country officers of the Department completed the questionnaire sent to the Department and that the details provided, for example of the types of courses that would attract students from the Department, are available should they be required.

Other Departments -

The Department of Public Works has about 113 staff located in the Central West of the State, 12 (9%) of whom hold the Leaving Certificate. Within the Bathurst area, the Department employs 79 persons, 10 (12%) of whom hold the Leaving Certificate. The Department suggests that a college in the area would have only a marginal effect on employment in the area.

The Department of Soil Conservation employs 81 persons, 26 (28%) of whom hold the Leaving Certificate and 35 persons were suggested as being interested in tertiary courses. However, for purposes relating to the proposed college, this number might be halved to provide an indication of likely initial enrolments in appropriate external courses.

The Water Conservation and Irrigation Commission employs about 120 persons in the area (at Forbes and Dubbo), excluding the large temporary employment at Wyangala Dam of 750 persons. The Dubbo office expressed some interest in the study of hydrogeology.

The Department of Main Roads employs about 117 persons in the area, 56 (48%) of whom have the Leaving Certificate. The Department suggests that a large proportion of the staff would be interested in tertiary courses, but did not indicate suitable courses. The Department employs only 23 persons in the Bathurst area.

The Department of Technical Education employs 111 persons, mainly in the technical colleges throughout the Central West and suggests that 8 members of staff would be interested in part-time or external diploma courses.

The Valuer General's Department employs 17 persons in the area, 14 of whom are qualified valuers. The Department indicates that staff movement throughout the State restricts face-to-face courses and, although on the one hand the Department expressed an interest in a course in valuing, on the other hand, it inferred that the present correspondence course is adequate for its needs.

The Department of Lands employs 87 persons in the area, of whom 30 (34%) hold the Leaving Certificate. The

Department has a Land Board Office at Orange where 6 staff members stated an interest in part-time tertiary courses.

The Police Department, apart from the constabulary, employs only a limited number (8) of persons (mainly clerks) in the area.

Of the other departments in the area, the Chief Secretary's Department employs 15 persons, the Department of Child Welfare and Social Welfare 12 persons, the Sheriff's Office 16 persons, the Housing Commission 37 persons (20 at the Orange District Office), theDepartment of Motor Transport 22 persons, the Joint Coal Board 3 persons and the Department of Labour and Industry 7 persons.

Employment statistics of State public servants in the Central West of the State and in the Bathurst area are provided in the following tables.

STATE PUBLIC SERVICE

EMPLOYMENT IN THE CENTRAL WEST OF THE STATE

Department	Total Number Employed	Number with Tertiary Qualification	Number undertaking Tertiary Courses	Number with Leaving Certificate	Number likely to undertake Tertiary Courses
Education	1,489	285	80	1,433	160
Hospitals Commission	2,603	107	31	165	246
Chief Secretary	15	-	-	n. i.	7
Soil Conservation	81	43	2	26	35
Water Conservation and Irrigation Commission	121	7	3	9	5
Forestry Commission	67	20	9	29	30
Railways (a)	3,175	n. i.	n. i.	n. i.	n. i.
Main Roads	117	30	24	56	115
Child Welfare	12	-	-	2	3
Technical Education	111	6	-	18	8
Electricity Commission	596	17	-	40	7
Public Health	467	30	6	22	15
Agriculture	217	73	6	58	54
The Sheriff	16	-	-	-	-
Prisons	113	-	-	2	5
Attorney General	53	3	22	44	n. i.
Valuer General	17	14	3	14	-
Public Works	113	17	2	12	17
Lands	87	12	10	30	12

Department	Total Number Employed	Number with Tertiary Qualification	Number undertaking Tertiary Courses	Number with Leaving Certificate	Number likely to undertake Tertiary Courses
Housing Commission	37	1	-	3	1
Motor Transport	22	-	-	-	-
Police	250 (b)	n. i.	n. i.	n. i.	n. i.
Joint Coal Board	3	-	-	-	-
Labour and Industry	7	-	-	-	-
Overall Totals (c)	9, 789	664	198	1, 963	720

SOURCE: Questionnaire Survey of State Government Departments.

(a) The Department of Railways indicated that it would need to undertake a detailed survey, itself, of its various country offices to obtain details of educational qualifications and the numbers likely to undertake tertiary qualifications.

(b) An estimate. The Department only collected detailed figures in relation to staff other than the constabulary.

(c) It must be kept in mind that certain Departments did not indicate the number of staff currently qualified, undertaking qualifications, or the number interested in undertaking tertiary qualifications. Hence, these figures tend to understate what the position might be.

n. i. Not indicated.

PUBLIC SERVICE EMPLOYMENT

IN THE BATHURST AREA

Department	Bathurst		Lithgow		Orange		Surrounding Area	Total	
	Total Number Employed	Number with L. C. *	Total Number Employed	Number with L. C.	Total Number Employed	Number with L. C.	Total Number Employed	Total Number Employed	Number with L. C.
Railways	532	n. i.	566	n. i.	366	n. i.	129	1,593	n. i.
Education	172	148	119	117	112	111	119	522	495
Hospitals (a)	311	23	160	8	164	22	88	723	56
Chief Secretary	1	-	-	-	-	-	-	1	-
Soil Conservation	2	1	2	1	8	2	-	12	4
Forestry Commission	19	13	7	2	5	4	-	37	21
Main Roads	-	-	13	5	10	4	-	23	9
Child & Social Welfare	2	-	2	-	2	1	-	6	1
Attorney General	6	5	3	2	5	4	3	17	14
Technical Education	14	1	23	2	23	3	-	60	6
Electricity Commission	2	2	451(b)	23	126	9	-	579	24
Public Health	14	-	2	-	436	12	5	457	12
Agriculture	22	7	-	-	38	9	8	68	17
Sheriff	2	-	1	-	3	-	-	6	-
Prisons	88	1	-	-	-	-	10	98	1
Valuer General	5	1	-	-	4	4	-	9	5
Works	40	10	-	-	39	-	-	79	10
Lands	-	-	-	-	22	12	-	22	12
Housing Commission	2	-	2	-	20	3	-	24	3
Motor Transport	2	-	2	-	3	-	-	7	-
Joint Coal Board	-	-	2	-	-	-	-	2	-
Labour and Industry	-	-	-	-	4	-	-	4	-
Police (c)	25	-	25	-	25	-	10	85	-
	1,271	212	1,380	160	1,415	200	372	4,434	690

SOURCE : Questionnaire Survey of State Government Departments.

(a) Supplied by the Hospitals Commission.

(b) Including Wallerawang.

(c) Estimate of the number of constabulary in the area, there being no administrative officers in the area.

* Leaving Certificate.

2.3 Local Government -

Throughout the Mitchell, Lachlan and Macquarie Regions, the three arms of Local Government employ approximately 3,500 persons, of whom approximately 130 (3%) hold tertiary qualifications in the form of the Local Government Clerks' qualification or an Engineering qualification.

The staffs of County Councils might be excluded from those listed as employed in Local Government. The reason for this is that they are employed either in the work of electricity distribution or in abattoirs and are included under those headings. This leaves 2,566 employed by Shire and Municipal Councils, 105 (4%) of whom have tertiary qualifications.

Councils have expressed a need for tertiary qualified persons in the form of clerks, accountants, engineers, etc. However, insufficient data has been collected on the employment needs of Councils to indicate the specific numbers required.

Local Government Bodies : Employment Data

Mitchell, Lachlan and Macquarie Regions

	Total Employment	Qualified Staff		
		Clerks	Engineers	Health Inspectors (b)
Municipalities	951 (a)	20	20	15
Shires	1,615	34	31	28
Total	2,566	54	51	43
County Councils	1,230	16	22	-

SOURCE : Questionnaire survey of Local Government Bodies in the area.

(a) Excludes the undertakings of Municipal Councils.

(b) Estimates.

3.0 LARGER PRIVATE EMPLOYERS

This section mainly summarizes the replies received from the larger employers in the area. The data has been classified on two bases - according to the type of commodity produced and according to the location of the employers.

Information has been obtained about the employment needs of employers in the following commodity groups : Food Processing, Cement Production and Mining, Electricity Distribution, Timber Products, Aviation, Retailing, Banking Larger Manufacturers and Manufacturing not elsewhere included.

In certain instances, additional information of a less specific nature has been provided when questionnaire data was not obtained.

3.1 Food Processing -

Gordon Edgell Pty. Ltd. has canning factories at Bathurst and Cowra, currently employing 350 and 250 persons respectively. In addition, the Company owns farms in the Talbragar, Cudgegong, Waugoola and Turon Shires, which supply the Bathurst and Cowra canneries.

Several developments within the agricultural sphere will have significance to Edgell's. First, the Wyangala and Burrendong Dams, which will open up large areas of river flats for intensive agricultural farming (as well as improve pastures for grazing purposes) and, secondly. the increasing incidence of asparagus farming. Hence, Edgell's expect further expansion of their activities within the area in the long-term.

Employees at the plants can be fairly clearly distinguished into two groups : process workers and technicall qualified supervisory staff. At the Bathurst plant, there is a small research section employing three graduates.

The concept of graduate employment is accepted by Edgell's and they offer three full-time scholarships a year - one in Food Technology at the University of New South Wales and two at the Hawkesbury Agricultural College, again in the food technology field. There is a limited movement through the ranks to higher positions.

Currently, Edgell's employ 5 Hawkesbury College diplomates on its farms (2 at Cowra, 2 at Dubbo and 1 at Mudgee) and 5 diplomates in the Bathurst plant.

Edgell's have a need for a 3-year full-time course in Food Technology. They are more interested in the diplomate for employment within their operations and for the graduate to enter the research side, although this is a generalization and depends on the personality of each of the persons concerned. It was indicated that Edgell's would double their employment of diplomates now that the Hawkesbury course in Food Technology has been increased to three years.

Whilst employment of qualified staff by Edgells will probably increase substantially over the next few years, it appears that the specialized diploma course (of 3 years' duration) in Food Technology offered at the Hawkesbury Agricultural College would serve their needs. It is also feasible to expect that any expansion in their farm management staff could also be supplied by the Agricultural College.

There are five abattoirs in the Mitchell, Lachlan and Macquarie Regions; three are run by County Councils, one by a private company and the other by the Dubbo Municipal Abattoirs.

Broadly, abattoirs do not employ a high level of qualified staff as only a total of 12 persons at the five abattoirs were reported as having tertiary qualifications. The main employment need of the abattoirs was in relation to meat inspectors, where a shortage of some magnitude was suggested.

EMPLOYMENT STATISTICS : ABATTOIRS

MITCHELL, LACHLAN AND MACQUARIE REGIONS

	Number Employed	Number with Qualifications	Employment Needs
Rodgers Meat Company	250	2	Veterinary and Agricultural Science and 10 Meat Inspectors.
Blayney (Abattoir) County Council	220	3	Veterinarians and Meat Inspectors.
Sub-total : Bathurst Area	470	5	
Cudgegong (Abattoir) County Council	80	-	---
Lachlan Valley(Abattoir) County Council	160	3	n. i.
Dubbo Municipal Abattoirs	300	4	Manager, Accountant, Veterinary Surgeon, 12 Meat Inspectors.
	1,010	12	

SOURCE : Questionnaire Survey of Employers.

n. i. Not indicated.

There are at least four Flour Mills in the area, the largest being at Manildra, and the others being at Bathurst, Forbes and Dubbo.

The mills do not employ many qualified persons, but they indicate a need for qualified staff in the fields of Food Technology and Accountancy.

EMPLOYMENT STATISTICS : FLOUR MILLS

MITCHELL, LACHLAN AND MACQUARIE REGIONS

	Number Employed	Number with Qualifications	Employment Needs
Manildra Flour Mills Pty. Ltd.	60	1	1 Accountant and 3 Food Technologists.
Dubbo Milling Company	20	-	
Tremain Bros., Bathurst.	45	n. i.	n. i.
Harris & Company, Forbes.	30	-	---
	155		

SOURCE : Questionnaire Survey of Employers.

n. i. Not indicated.

Barretts Ice-Cream and Milk Factories employ 100 persons, several of whom have tertiary qualifications. A need for a further 10 qualified persons in the areas of management, accountancy, food technology and chemistry was indicated.

EMPLOYMENT STATISTICS : FOOD PROCESSING

MITCHELL, LACHLAN AND MACQUARIE REGIONS

	Number Employed	Number with Qualifications	Employment Needs
Canning	700	15	Food Technology, Management.
Abattoirs	1,010	12	Management, Veterinary Science and Agriculture, Meat Inspectors.
Flour Milling	155	1	Food Technology.
Ice Cream and Milk Factories	100	3	Food Technology, Management.
Totals - Three Regions	1,965	31	Food Technology (about 5), Management (about 5), Meat Inspectors (about 20)
Totals - Bathurst Area	975	19	Food Technology (about 5), Management (about 5), Meat Inspectors (about 20).

SOURCE : Questionnaire Survey of Employers.

3.2 Cement Production and Mining -

There are three large Cement Companies in the Portland/Kandos area.

The Standard Portland Cement Company at Charbon employs 335 persons, 4 of whom possess tertiary qualifications and additional qualified staff in the fields of industrial chemistry and in mechanical, electrical and mining engineering.

The Commonwealth Portland Cement Company employs 335 persons of whom about 5 hold tertiary qualifications although the Company expresses a need for an accountant, 2 mechanics, 2 electrical, 1 industrial or chemical, and 2 mining engineers.

The Australian Portland Cement Limited at Kandos employs about 300 persons of whom 4 have tertiary qualifications. The Company expressed a need for management staff (works manager, quarry manager and a production manager), for an accountant, a chief chemist and for engineering staff.

Unfortunately, neither Company elaborated on the possible relationship between the proposed college and themselves.

In summary, the Companies employ close on 1,000 persons, about 12 of whom have tertiary qualifications, and there exists an employment need in the field of management (for about 6 persons) and engineering (for about 14 persons).

Coalmining in the Lithgow area employs approximately 535 persons. The mining operations have been progressively mechanized over the years and this has resulted in the displacement of many miners. However, as a second power station will be built in the area, the demand for coal would increase and might stabilize employment in the mines. Another effect of the mechanization of mining would be to increase the number of technically qualified staff, at the lower level, employed in the industry. There are four persons out of the 535 with tertiary qualifications and a greater number of persons with a lower level of qualification.

The Cobar Mines, which are located slightly beyond the Macquarie Region, employ 306 persons (as at 1st April, 1967) in its operations of mining copper and copper-zinc ore with the production of copper and zinc concentrates. The firm currently employs 17 persons qualified at a tertiary level, but indicates a need for twice this number : 20 engineers, 3 accountants, 3 surveyors, 3 assayers and 6 draftsmen. The Company expects to develop productive operations at the Chesney mine, three miles south of Cobar, some time in the future.

3.3 Electricity Distribution -

Each of the concerns involved in electricity distribution are County Councils. Within the overall area they employ a total of 934 persons, 23 of whom hold tertiary qualifications, but the Councils express a need for persons with "wider" qualifications, say, a diploma covering economics, psychology of management, business statistics, etc. Several Councils also indicated that they were prepared to sponsor full-time students to obtain qualified staff.

Each of the Councils expected its sales to rise and the need for qualified persons to intensify. The Ulan County Council made reference to the difficulty of attracting staff to the country, indicating that it had to sponsor qualified migrants to satisfy its needs.

The employment position of the Wallerawang Power Station was referred to under the Electricity Commission (State Government Departments). However, it is mentioned here that the Power Station does serve as a training centre for the Commission's staff and that it might provide a limited source of long vacation employment for full-time engineering students should the proposed college offer such a course.

EMPLOYMENT STATISTICS : ELECTRICITY DISTRIBUTION

MITCHELL, LACHLAN AND MACQUARIE REGIONS

County Councils	Number Employed	Number with Qualifications	Employment Needs
Ophir	117	3	7 Qualified Managers and Engineers.
Hartley	85	3	4 -do-
Southern Mitchell	93	3	8 -do-
Sub-total : Bathurst Area	295	9	19 -do-
South-Western Slopes	70	1	5 -do-
Macquarie	184	4	5 -do-
Central-Western Slopes	284	5	10 -do-
Ulan	101	4	7 -do-
Totals	934	23	46 -do-

SOURCE : Questionnaire Survey of Employers.

3.4 Timber Products -

The needs of the three largest firms in the Bathurst area involved in producing timber products - Atel Furniture, Pyneboard and Timber Industries - are reported upon here.

Atel Furniture employs about 100 persons in the manufacture and sale of modular and standard furniture. It currently employs qualified staff in the fields of management (4), accountancy (1), wood technology (1) and electrical engineering (1). This Company expects substantial growth in activities in the next five to ten years but currently does not have any need for further qualified staff.

Pyneboard employs approximately 200 persons with a further 80 employed as sub-contractors in wood procurement operations. Pyneboard is jointly owned by C. S. R. and A. M. P. and the qualified staff of Pyneboard are on loan from those companies. Pyneboard is now developing its own expert staff and, therefore, has a need for obtaining qualified replacements.

The Companies' specific employment needs are listed below :-

Position	Requirement
Management (3)	Engineering Science and Wood Technology base with some management and accountancy knowledge.
Accountants (2)	
Engineers (4)	Mechanical and Electrical with Design experience.
Technical Officers (2)	Wood technology.
Foresters (2)	Forestry.

Timber Industries employs approximately 100 persons in its logging and sawmilling activities. Its needs for qualified staff are very limited.

EMPLOYMENT STATISTICS : TIMBER PRODUCTS

(BATHURST AREA)

	Number Employed	Number with Qualifications	Employment Needs
Atel Furniture	100	7	-
Pyneboard	200	6	13 (see above)
Timber Industries	100	2	-
	400	15	13

SOURCE : Questionnaire Survey of Employers.

3.5 Larger Manufacturers -

Discussions have been held with Email Ltd. and the Small Arms Factory. A detailed statement of the employment position at Email's is provided below.

Approximately 1,400 persons are employed at the Email plant in Orange. Most of the employees are engaged in the production line although there is a relatively large accounts section.

Email moved to Orange in 1946 to occupy the Commonwealth Small Arms factory. The Company assessed its position some time ago and decided that whilst decentralization had placed it at a disadvantage in relation to other consumer appliance manufacturers, it would remain in Orange.

The main factors accounting for this disadvantage appear to be :

(i) transport costs, including damage in transit;

(ii) the need to stabilize its employment position owing to its economic importance in relation to Orange, and

(iii) costs of communication.

The Company, in 1965, moved its "Carmical" plant from Auburn to Orange with the view to stabilizing its production activity.

The areas in which Email employ qualified staff are engineering, accountancy and management. There are currently about 20 graduate engineers and about 10 certificate engineers on Email's staff. In addition, approximately 60 members of staff are undertaking the certificate course in engineering at the Orange Technical College.

The basic training method of Email is to recruit local school leavers for apprenticeship training, coupled with a scheme to provide experience in all facets of the Email plant. The brighter person is encouraged to undertake the certificate course either after completing the trade course or before. Email will recruit specialists (graduates) from Sydney but this is costly and great difficulty is experienced.

It was indicated that the reason underlying this training method was that staff who move through the ranks tend to make better supervisors and executives than staff brought in at the higher level. It was suggested that the location of Email within a country town partly accounted for this behaviour.

Email displayed intense interest in the proposed college, indicating that its plant could, within reason, be used for training purposes and that the expansion of Email has tended to be restricted by the lack of professional skill within the area (having in mind the difficulty of recruitment from the city).

The types of courses for which Email see an immediate need are : an Engineering Diploma, an Accountancy Diploma and a Post-Diploma course in Management.

(1) Engineering Diploma : It was indicated that the diploma level qualification was the most desirable for Email, with the course being conducted on a part-time basis. It was also indicated that the release of the part-time student for one day a week might be arranged should this prove necessary.

The following points were made in relation to the above matter :

(a) The part-time course would permit training at the plant.

(b) Persons at the diploma level tended to fit in better with operations at the plant and were preferable to the "brilliant graduate" who tended to find the work mundane.

(c) The Company would recruit school leavers, with the Leaving Certificate, specifically to undertake a diploma course if this were available. At this stage it is thought that 5 persons per annum would be involved.

(d) There would be a backlog of about 15 persons who might undertake the diploma course if it were offered.

(e) As the person undertaking the course was given several years' training throughout the whole operation, little preference is displayed for any of the fields of specialization within engineering. The person would eventually be placed where he performed the best.

(f) If commuting to Bathurst was made feasible for part-time students, it is likely that persons from Email would attend. However, the Company believes that commuting, particularly in Winter, would prove hazardous and, therefore, might restrict the numbers involved.

(2) Accountancy Diploma : Email currently employs 4 qualified accountants and there are about 6 staff members at an advanced stage of the course. However, as the technical college will not be able to offer the course in the future, the Company foresees the need for such a course to be offered by the college of advanced education.

Again, this Company is interested in a part-time course for which it would provide several students each year.

(3) Management Diploma : Currently, there are about 20 executive positions within Email for which management training is most desirable. There are 12 members of staff undertaking the Supervision and Management courses at the technical college.

The needs of Email for this course relate to technically qualified staff who have moved through the ranks to the supervisory level. It appears that a 2-year part-time course in Management would serve these needs best. For such a course it was suggested that, initially, about 20 persons from Email would be interested, although the subsequent annual intake would be about 5 or even less.

It appears that a 5-year (part-time) diploma course in Engineering would be suited to the needs of Email. The technical content of the course might place slightly more emphasis on mechanical engineering, although a general coverage of electrical, industrial, mechanical and production engineering would be required. It is also thought that the liberal arts content might include psychology and sociology which would provide a basis for a subsequent post-diploma course in Management of 2 years' duration. It might eventuate that the liberal arts content of the course might, in fact, supercede the need for the Management Diploma.

The Small Arms Factory employs 1,300 persons, 23 of whom are graduates and diplomates in engineering, chemistry and metallurgy. The Manager of the factory expressed a greater need for technicians but this would require trades level qualifications rather than diploma level.

3.6 Manufacturing, not elsewhere included -

Berlei Limited employs approximately 275 persons at Lithgow in the manufacture of foundation garments, but does not employ staff qualified at the tertiary level.

It is noted that Bonds will be shortly opening a large factory at Lithgow which will employ over 200 persons. However, it is felt that the employment of qualified staff will not be substantial. This comment would also apply to the other clothing manufacturers in the area, all of which would be branch factories merely carrying out specific manufacturing functions.

J. Robins (Bathurst) Pty. Ltd. employs 294 persons in its two shoe factories at Bathurst. At present the Company does not employ persons with tertiary qualifications but it does see a need for several persons qualified in management and accountancy and one qualified mechanical engineer.

D. Normoyle and Company is engaged principally in the fabrication of structural steelworks at Young. It employs 70 persons, none of whom has a tertiary qualification but the Company expresses a need for a qualified mechanical or civil engineer.

Rocla Concrete Pipes Limited employs approximately 30 persons none of whom possess tertiary qualifications but the Company expresses a need for one accountant and one engineer each with additional qualifications in economics or management.

Causmag Ore Company employs 30 persons in the mining and processing of magnesite ore. It currently employs persons with tertiary qualifications but indicates a requirement for an economist, and industrial chemist and a mechanical engineer.

EMPLOYMENT STATISTICS : MANUFACTURERS N.E.I. MITCHELL, LACHLAN AND MACQUARIE REGIONS

	Number Employed	Number with Qualifications	Employment Needs
Berlei Ltd. (Lithgow)	275	-	--
Bonds Ltd. (Lithgow)	200 (approx.)	n.i.	n.i.
Macquarie Worsteds (Orange)	180	n.i.	n.i.
J. Robins Ltd. (Bathurst)	294	-	Manager, Accountant, Mechanical Engineer
Rocla Pipes (Bathurst)	30	-	Accountant, Engineer
Sub-total : Bathurst Area	979	-	
D. Normoyle	70	-	Mechanical Engineer
Causmag Ore	30	3	Economist, Chemist, Mechanical Engineer
Totals	1,079	1	1 Manager, 4 Engineers, 2 Accountants, 1 Chemist, 1 Economist

SOURCE : Questionnaire Survey of Employers.

3.7 Aviation -

Hazelton Air Services employs 51 persons at Cudal; 21 are pilots and 2 are qualified engineers. The Company expresses a need for 6 trainee pilots and 10 trainee engineers.

Aviation Projects Pty. Ltd. indicated that it is about to move from Bankstown Aerodrome to Bathurst. This Company is involved in the maintenance and repair of light aircraft and in the design and manufacture of aircraft component equipment and in this regard it has developed the "Spraymaster" aircraft. The Company has an ambitious expansion programme which envisages the employment of 200 persons by 1971.

The Company is most interested in employing technological or semi-professional engineering staff, and stated that :

> "It could well be that a basic Science course, embodying such subjects as Mathematics, Physics, Chemistry, Electricity, Mechanics Structures and the like, as well as general education subjects, would be suitable. Specialised training to greater depth could then be obtained ... "

The Company suggests it could sponsor up to 10 students per annum but this estimate might be too high. The Company would also be interested in commerce courses at a later stage.

Ansett A. N. A. is establishing an aircraft maintenance and repair workshop at Dubbo and expects to employ up to 200 persons. This Company would, no doubt, have a demand for aviation engineers and technicians at various levels.

3.8 Retailing -

Within the three regions being examined, Western Stores Ltd. has nine branches employing about 720 persons in total. Western Stores Ltd. is a division of the Myer Emporium and is the largest retailer in the Central West.

Region	Branch	Number of Staff	
Mitchell	Bathurst	162	
	Molong	25	
	Orange	157	344
Lachlan	Cowra	80	
	Grenfell	40	120
Macquarie	Dubbo	137	
	Gilgandra	40	
	Narromine	40	
	Wellington	40	257
TOTAL			721

The Secretary of Western Stores Ltd. expressed his views on the above subject in the following words :

> "The merchandising functions of retailing do not require people with a great deal of tertiary education. Rather, they require an inherent marketing flair in the person, together with experience gained in on-the-job training. However, in the other fields in retailing, such as accounting, administration, store design, etc., it is undoubtedly of assistance to our staff to have had a tertiary education."

Discussions with the Manager of the Bathurst branch revealed that the branch employs a qualified accountant and several persons who are completing their course and that the position would be similar in the Orange and Dubbo stores. At the other stores, the accounting staff would be smaller.

In relation to administration staff and to other tertiary qualified staff, such persons (who possibly would be graduates) would be located at head office only.

Other large stores in the area have been contacted and the views expressed by officers of Western Stores Ltd. appear to apply generally to retailing in the area. The Walton's branch at Bathurst indicated that several members of staff were studying accountancy.

3.9 Banking -

It appears that whilst the Banks would be interested in a diploma course collectively in the fields of commerce, banking and business psychology, they could not offer much support for the course should it be offered at Bathurst owing to the policy of the Banks to rotate staff as port of their training programmes. However, discussions were held with the Commonwealth Bank and a possible course for bank officers was devised. Comments on the proposal and its problems are presented in addendum II.

3.10 Other Finance Companies -

Although not all finance companies, insurance companies and rural finance companies, responded to the questionnaire survey, it appears that these organizations do not employ many qualified staff. Agricultural college diplomates are the only exceptions.

3.11 Professional Employers -

Accounting firms would be the main case in point. There appears to be a limited need for qualified accounting staff by these concerns in the area.

4.0 RURAL INDUSTRY

4.1 Farming -

Owing to the number of farmers involved, and to the problems of sample surveys, statistical data on the employment needs of farmers was not obtained.

However, a small number of experts in the field were approached to give their opinion on the requirements of the farming industry in the area. The consensus of opinion was that there is a need for agricultural education facilities in the area and that the courses to be offered should cover both technical and management aspects of farming.

It is realized that members of the Committee have had opportunities, at each of the country meetings and at the meeting attended by Dr. Butler and Professor Willis, to obtain expert opinion on this matter. However, several points raised may be of interest :

Professor F.C. Crofts, Associate Professor of Agronomy, University of Sydney :

> "The real needs in country centres are for specific, short, full-time or part-time courses to supply particular needs at the time they occur. New agricultural developments demand new technological courses, but these courses will be valued by the farming community only if they tell the farmers what they wish to know. I cannot see any future for long technology courses covering a wide range of material."

Dr. R.B. Dun, Directer of Animal Production Research, Department of Agriculture :

> "My opinion is that there would be a very real demand for agricultural education at the diploma level in the Central West of New South Wales. There would be a demand for information on the technical side of agriculture, but I would agree that a diploma course on farm management would have a very real appeal. However, it is difficult to differentiate farm management from farming techniques - it is a matter of emphasis on economics, and I imagine that in a diploma course you would be faced with a large overlap with existing Agricultural College courses."

Several persons contacted have yet to forward detailed comments on this matter.

While it is not the function of the proposed college to fill in the gaps of the present tertiary education facilities, a most relevant fact to bear in mind is -

> "the inability of the existing Diploma Course Colleges (Hawkesbury and Wagga) and the Farm Certificate Course at Yanco to cater for the number of students seeking enrolment".
> (Dr. F. C. Butler, Deputy Director-General of Agriculture)

Farming is the largest occupation in the Central West and it is apparent, partly from the above, that it has the greatest needs for qualified personnel.

4.2 Farm Machinery Assembly and Manufacture -

There are a limited number of firms engaged in the assembly or manufacture of farm machinery in the area and, as these firms operate on a small scale, the industry is not very large. There are several firms at Parkes, one at Wellington and one at Orange, assembling farm equipment. Steel fabricating concerns in the area are partly engaged in the industry.

It is surprising to me that this industry has not developed to a greater extent within the Central West.

However, most manufacturers of farm equipment have sales and service depots scattered throughout the area and such concerns, particularly at their central offices, would have some demand for a "rural engineer".

5.0 SUMMARY

As only the larger employers in the area were directly approached to provide information on their needs for qualified staff, there would be employment needs in the area in addition to those reported above. However, a guide to the likely employment needs of the smaller employers in the area is provided in addendum I where figures relating to the smaller employers in Orange are provided. It is also true that persons can be interested in obtaining tertiary qualifications whether or not such are required in their present position or occupation. In fact, there are many factors affecting the interpretation of the data presented above.

Within the three regions a need has been expressed for courses leading to qualifications in accountancy, management, engineering, agriculture, paramedical studies, nursing, criminology, forestry, hydrology/hydrogeology, librarianship, food technology, veterinary and agricultural science, wood technology, aviation and rural engineering. In addition courses have been requested to provide training for local government clerks, meat inspectors and commercial pilots.

Other courses have been suggested by the Central N. S. W. College of Advanced Education Committee, the Orange Advanced College Committee and by other persons presenting submissions to the Committee. However, time did not permit the collection of information relating to such other courses.

Estimates of the extent of the needs of employers in the Central West for the main fields of study are provided in the following table :

ESTIMATED NEEDS : EMPLOYERS IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS

Field of Study	Total for the Three Regions	Bathurst Area	Comments
Accountancy	40	20	Needs may be understated, particularly in Public Service figures.
Management	95	75	Both Business and Public Administration. Needs not necessarily related to diploma level courses.
Engineering	55	50	Present needs mainly in Orange and Lithgow and, to a lesser extent, Bathurst.
Para-medical	45	35	Needs of hospitals and the Department of Public Health.
Liberal Arts	30	20	Re non-graduate teachers only.
Other Fields	40	30	Forestry, Aviation, Food Technology, Criminology, Hydrogeology, Wood Technology, etc.
Advanced Secretarial	(100)	(45)	(Could be substantial. (Figures are only (unsubstantiated (guesses.
Professional Nursing	(50)	(30)	
Agriculture	(200)	(100)	

SOURCES : 1. Questionnaire Survey of Employers.

2. Questionnaire Survey of Public Service Departments.

It is pointed out that the figures set out above are purely estimates based on the information obtained from questionnaire surveys.

In the case of the survey of Public Service departments, the replies tended to fall into a pattern in that departments would indicate a general need for qualified staff in various fields but suggested that the proposed college would not affect employment by that department in the area. I feel the Public Service returns understated their needs and the above figures have been conservatively adjusted to account for this factor in certain areas.

Many of the departments provided information on the number of staff likely to undertake tertiary courses.

Information provided by private employers was also adjusted, although only to a limited extent, due to certain apparent overstatements of their need for qualified staff.

It must be borne in mind that the above figures relate only to the needs of employers in the area who were contacted in some way. The estimates might be increased by 20% to allow for the needs of smaller employers not contacted.

As mentioned earlier, persons would wish to study various courses (for example, accountancy) even if the qualification is not necessarily required by the person in his or her occupation.

It would seem to me that whilst there is a need in the three regions (and in the Bathurst area) for a wide range of fields of study, as indicated above, the needs would not be sufficient, either now or in the foreseeable future to sustain a college of advanced education in the Central West. Any college established in the Central West of New South Wales would have to be assisted by students who, on completion of their courses, would seek employment outside the region, or by students from other parts of New South Wales or Australia who would come to the college to study.

In the light of the Committee's decision on this matter it would appear that the location of the proposed college at Bathurst would enable the greatest range, and number, of needs to be served. This would be due mainly to the centrality of Bathurst in relation to Orange and Lithgow and on the presumption that the needs of rural employers can be served just as well at Bathurst as at any other location in the Central West.

ADDENDUM I

NEEDS OF EMPLOYERS IN ORANGE

Owing to the assistance of the Orange Advanced College Committee, a more detailed survey of the needs of employers in Orange was possible. Reference has been made to the needs for qualified staff by Email Ltd., Ophir County Council, the Electricity Commission, Hazelton Air Services, Rodgers Meat Company, Barrett's Ice Cream and Milk factories, Macquarie Worsteds and the City and Shire Councils which are relatively large employers in Orange. The following comments relate to the needs of a large number of the relatively smaller employers in Orange.

The information presented below is broadly categorized into industry groups so as to try and establish the employment needs of each of the industries covered.

Motor Vehicle Repairs -

There are several fairly large motor vehicle repair companies in Orange (E. C. Cameron & Sons, Rural Motor Co. Ltd., etc.) together with a large number of smaller concerns. The main needs of these concerns appear to relate to qualified tradesmen. However, a need for persons qualified in accountancy, engineering and business management was also expressed. From the point of view of continuing enrolments in diploma courses in these fields this industry would have only a very limited need.

Banking and Finance -

In almost every instance, banking and finance companies are represented in Orange only by branch offices. From the point of view of employees undertaking tertiary courses, this creates the difficulties of having only a limited staff in the area and restricts the company's desire to rotate staff between branches as part of a general training programme. However, despite these difficulties, several banks, rural finance companies and insurance companies indicated that members of staff would be interested in appropriate tertiary courses and that the companies themselves would be interested in promoting such activities. The main areas of study involved would be accountancy, business management, insurance and rural science. Certain of the concerns expressed an interest in the proposed secretarial course outlined in the Report of the Orange Advanced College Committee. From the point of view of likely annual enrolments in courses conducted by the proposed college, it would appear that a small number might be expected to come from this industry for the courses in accountancy and secretarial practice.

Retailing and Wholesaling -

This group would be relatively important to the economy of Orange in terms of both employment and turnover. Western Stores would be the largest retail outlet but there is a large group of smaller retailing and wholesaling concerns in Orange. It is evident that the employers in this industry are interested in their staff obtaining qualifications in business management and accountancy and that at least twenty persons so qualified would serve the needs of Orange. Converting these figures into annual enrolments at a college, it would seem that only a limited continuing enrolment could be expected.

Tyre Repair -

Within this industry a need is expressed for qualified accounting or managerial staff. However, the numbers involved are extremely limited.

Engineering Concerns -

There are several medium sized engineering firms in Orange serving the needs of the town and the surrounding rural area. These concerns express a need for qualified engineering and management staff, although, in total, about ten engineers and ten qualified managers would appear to satisfy the needs of the industry. Several of the farm machinery firms would also be interested in persons with rural qualifications.

Professions -

Accounting and surveying companies participated in the questionnaire survey and indicated a shortage of professionally qualified persons in their respective fields. This comment might apply to other professional groups in Orange. The proprietors of the Central Western Daily indicated that four to five members of staff would be interested in courses in journalism.

Employers in other industries expressed a need for qualified staff but the needs would appear to be too restricted to be of significance in relation to a college of advanced education.

However, to obtain a more complete picture of the needs of employers in Orange, brief reference is now made to the larger companies not included in the above comments.

Email Ltd., the Electricity Commission and the Ophir County Council have a continuing need for engineers and, in conjunction with the other larger employers, would have a continuing need for persons qualified in management. A need for food technologists, aero engineers and pilots is also evident in Orange.

CONCLUSION

Whilst the above information indicates that the needs of employers in Orange are quite extensive (and little has been said about the need for tradesmen), it is also apparent that only in the cases of accountancy, possibly engineering, business management and secretarial practice, does the need appear to be substantial enough to be regarded as a continuing need. The needs in other fields such as rural science, aviation, food technology, merchandising, journalism, etc., whilst being quite real, are limited in relation to the numbers involved with a college of advanced education.

ADDENDUM II

SURVEY OF EMPLOYMENT - BANKS

Details of employment by two banking institutions are provided below, together with a discussion of the employment policy of, and a course suggested by, the Commonwealth Bank.

Basically, the Commonwealth Bank is interested in its staff undertaking part-time tertiary courses. The main emphasis is, however, placed upon university degree courses in economics, commerce or arts (provided economics and psychology are included in the degree).

One of the main considerations underlying the Bank's policy toward staff undertaking tertiary courses is that the Bank is primarily concerned with developing a "good bank officer". This means that the Bank is interested in part-time courses which do not intrude into business hours, that the course should contain a high proportion of "behavioural" subjects, such as, economics and psychology, and that the location of the tertiary institution should not prevent the Bank from moving its staff between different branches, this being considered an important way of providing experience for Bank staff.

It appears that, whilst the Bank is interested in the proposed college, there are several factors which mitigate against its probable use of the facility :

(i) The location of the proposed college in Bathurst would restrict the movement of staff between branches, although if evening commuting from Orange and Lithgow was made possible this problem would be reduced.

(ii) The Bank tends to encourage staff to undertake degrees in lieu of diplomas (the Commerce Diploma being instanced) as the degree tends to have a higher standing.

I am of the opinion that a diploma in business management could suit the needs of the Bank better than a degree in economics or arts, although it might take some time to convince the Bank (and the business community in general) of this view.

From the point of view of the proposed college at Bathurst, it is apparent that the Bank would be most interested in the college if its courses were accepted by one of the universities in Sydney. This acceptance would be conditional upon the over-riding consideration that the courses at the proposed college would have to be strictly on a part-time basis.

Currently, the Royal Institute of Technology runs a ten-subject course for bank personnel; examinations are held at six-monthly intervals and most of the students study by way of correspondence. The content of the course is strongly orientated towards a banking occupation. The successful completion of the course provides admittance to the Bankers' Institute of Australia.

It is felt that a strengthened version of that course, coupled with a sequence of liberal arts subjects in which "behavioural" subjects, such as psychology and sociology, might be studied to some depth, might represent a course that would be of interest to bank personnel, particularly, if such a course could be designed so that credits gained at the college would be acceptable at a university (or any other recognized tertiary institution) in Sydney.

It appears to me that such a course would represent a suitable framework for a diploma in business management which, with the use of suitable electives, could provide scope for more specialization.

The following is a quotation from the Bankers' Institute Handbook of Information, 1967, outlining the present qualifying course :

Examinations : Regulations and Syllabus

The following is a summary of the regulations for the examinations for the diploma of Associate of the Bankers' Institute of Australasia :

1. (a) The subjects for the Intermediate examination are :

I.	English Expression.
II.	Accountancy, Part I.
III.	Commercial Law, Part I.
IV.	Economics.
V.	Economic Geography.

(b) The subjects for the Final examination are :

VI.	Practical Banking and Banking Law.
VII.	Accountancy, Part II.
VIII.	Commercial Law, Part II.
IX.	Securities.
X.	Banking, Currency and Exchange.

2. EXEMPTIONS :

(a) Candidates who have passed in equivalent subjects with an Accountancy Institute of Technology recognized by the Board of Examiners may be granted exemption from examination in any or all of subjects II, III, VII and VIII.

(b) Candidates who have passed in an equivalent subject in a degree or diploma course of a British University may be granted exemption in any subjects of the Institute's examinations other than subjects VI and IX.

(c) A candidate who has completed the Associate examinations of The Institute of Bankers, London, may be granted exemption from the full Intermediate examination.

(d) A candidate from England who has settled permanently in Australia, and who has passed in any of the examinations of The Institute of Bankers, London, may apply for exemption from examination in equivalent subjects, and will be given consideration as a special case by the Board of Examiners.

(e) Exemption from examination in English Expression may be granted to those candidates who produce evidence to show that they have completed the examinations of an Accountancy Institute or some other body of similar standing recognised by the Board of Examiners for this purpose or that they have passed in English Expression at Australian Matriculation Standard or its equivalent.

3. The examinations are held in May and November each year, in the capital cities of Australia and New Zealand and at such other places as are approved by the General Committee. For a country candidate the usual procedure is for the Institute to forward question papers and stationery to a local manager with a request that supervision be arranged for the candidate.

The Commonwealth Bank employs only 271 persons in the overall area of whom 47 hold the Leaving Certificate. Within the Bathurst area, employment totals only 76 of whom 19 hold the Leaving Certificate. These figures are comparable to those for the Rural Bank which employs 264 persons in the overall area and 57 in the Bathurst area. Of these numbers, 49 and 13 respectively hold the Leaving Certificate.

These figures suggest that total employment by all banks would approximate 1,250 in the overall area of whom about 300 might hold the Leaving Certificate.

ADDENDUM II

The Rural Bank had indicated employment policies similar to those expressed by the Commonwealth Bank so that it might be safe to regard the above view as being reasonably representative of the industry.

From the point of view of acceptance of tertiary qualifications it is apparent from the above that the Banks do recognize such and, in the case of the Commonwealth Bank at least, cash inducements are offered for the attainment of tertiary qualifications.

ADDENDUM III

INFORMATION SUPPLIED BY THE DEPARTMENT OF LABOUR AND NATIONAL SERVICE CONCERNING OCCUPATIONS NORMALLY INVOLVING DIPLOMA LEVEL QUALIFICATIONS

Occupation	Comments
Accountancy/Commerce	---
Advertising	Certificate course not adequate, desire for diploma provisional qualification, likelihood of immediate success in Art (as in Fine Art).
Agriculture	---
Architecture	---
Engineering (following Production, Electronics, Electrical, Mechanical, Civil, Structural and Chemical)	---
Metallurgy	---
Heating, Ventilation and Air Conditioning	Post-trade or Certificate level training held to be inadequate; there is a diploma course in this field in Victoria.
Surveying	---
Building and Quantity Surveying (also Clerk of Works)	---
Science (Industrial Chemistry, Food Technology, Physical Scientist, Biological Scientist, Paramedical)	---
Earth Science (Biology)	University training not suited in relation to exploration work.
Rubber Technology)) Plastic Technology)	Not too much work in New South Wales to require a diploma course, but national and international developments suggest that there is a need for such. No facilities available here, not even at any level (a university to apprenticeship).

ADDENDUM III

Occupation	Comments
Physiotherapy	---
Draft Teaching and Music	---
Drafting and Naval Architecture	---
Librarian	---
Public Administration (Local, State and Federal Governments)	---
Personnel Management	---
Textiles design and production	Diploma course in other countries in textiles. Present technical college course (diploma) not technical enough, but course may be redesigned to suit employers' needs.
Radiography, Diagnostic and Therapeutic	Existing course requires Leaving Certificate entrance but does not offer a diploma. Technological change may require an upgrading of the course to diploma level (see also Institute of Radiography).
Electronic Data Processing	Special and private courses available only - facilities inadequate to needs.
Nursing	Degree at University of New England, a limited number (6), mainly for teacher nurses. General need for wider courses than the present training course.
Rural Science (unsure whether an Institute course will develop)	---

NOTE : The Department of Labour and National Service supplied the above material on the understanding that the views expressed will not be treated as official.

ADDENDUM IV

LIST OF INDIVIDUALS AND ORGANIZATIONS
SUPPLYING INFORMATION

Email Ltd., Orange.
Commonwealth Small Arms Factory.
Woolworths Ltd., Bathurst.
Waltons Ltd., Bathurst.
J. Robins (Bathurst) Pty. Ltd.
Atel Furniture, Bathurst.
Rocla Pipes, Bathurst.
Commonwealth Portland Cement Co., Portland.
Berlei Ltd., Lithgow.
Manildra Flour Mill and Stock Food Co., Manildra.
Hazelton's Air Services, Cudal.
Aviation Projects Pty. Ltd.
Kandos Cement Co. (A. P. C.), Kandos.
Charbon Cement Co. (S. P. C.), Charbon.
D. Normoyle & Co. Ltd., Young.
Causmag Ore Pty. Ltd., Young.
Rodgers Meat Co., Orange.
Barretts Ice Cream Pty. Ltd., Orange.
Dubbo Milling Co. Pty. Ltd., Dubbo.
Gordon Edgell Pty. Ltd., Bathurst and Cowra.
Pyneboard Pty. Ltd., Oberon.
Timber Industries Pty. Ltd., Oberon.
Cobar Mines Pty. Ltd., Cobar.
Blayney (Abattoir) County Council, Blayney.
Cudgegong (Abattoir) County Council, Mudgee.
Ophir County Council, Orange.
Hartley County Council, Lithgow.
Southern Mitchell County Council, Bathurst.
South Western Slopes County Council, Young.
Macquarie County Council, Dubbo.
Central West County Council, Parkes.
Ulan County Council, Gulgong.
Western Stores Ltd.
Commonwealth Banking Corporation.
Wallerawang Power Station.
Department of the Attorney General and of Justice.
Department of Railways.
Department of Education.
Department of Prisons.
Department of Agriculture.
Department of Public Works.
Department of Conservation.
Department of Main Roads.
Department of Child and Social Welfare.
Department of Labour and Industry.
Department of Technical Education.
Department of the Valuer General.
Department of Lands.
Department of Public Health.
Blaxland Shire Council.
Oberon Shire Council.
Rylstone Shire Council.
Abercrombie Shire Council.
Turon Shire Council.
Lyndhurst Shire Council.
Canobolas Shire Council.
Molong Shire Council.
Boorowa Shire Council.
Waugoola Shire Council.
Boree Shire Council.
Demondrille Shire Council.
Burrangong Shire Council.
Weddin Shire Council.
Jemalong Shire Council.
Goobang Shire Council.
Bland Shire Council.
Lachlan Shire Council.
Coolah Shire Council.
Coonabarabran Shire Council.
Wellington Shire Council.
Talbragar Shire Council.
Coonamble Shire Council.
Timbrebongie Shire Council.
Bogan Shire Council.
Lithgow City Council.
Bathurst City Council.
Orange City Council.

The National Bank of A/asia Ltd.
Department of Social Services.
The Hospitals Commission.
Electricity Commission of N. S. W,
Forestry Commission of N. S. W.
Rural Bank of New South Wales.
Housing Commission of N. S. W.
Chief Secretary's Department.
The Sheriff's Department.
Police Department.
Department of Motor Transport.
Joint Coal Board of N. S. W.
Dr. R. B. Dun, Director of Animal Production Research, Department of Agriculture.
Professor F. C. Crofts, Associate Professor of Agronomy, University of Sydney.
Mudgee Municipal Council.
Dubbo City Council.
Nyngan Municipal Council.
Peak Hill Municipal Council.
Parkes Municipal Council.
Forbes Municipal Council.
Grenfell Municipal Council.
Young Municipal Council.
Murrumburrah Municipal Council.
Commonwealth Public Service Board.
Postmaster General's Department.
Department of Labour and National Service.
Department of Civil Aviation.
Department of Works.
E. M. Roberts, Esq., University of New South Wales.

REPORT TO THE COMMITTEE

APPENDICES E, F, G AND H

E SURVEY OF 1966 ACTIVITIES OF 1965 LEAVING CERTIFICATE CANDIDATES FROM SECONDARY SCHOOLS LOCATED IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS.

F THE STUDENT POOL.

G FUTURE PLANS OF CURRENT FIFTH AND SIXTH FORM STUDENTS.
AND
ATTITUDE TOWARDS TERTIARY EDUCATION AND INTEREST IN AREAS OF STUDY PROPOSED FOR COLLEGES OF ADVANCED EDUCATION.

H PARENT AND STUDENT QUESTIONS AND COMMENTS PERTAINING TO RESPECTIVE QUESTIONNAIRES AND COLLEGES OF ADVANCED EDUCATION.

BY :

D. A. Cross, M. Sc., Dip. P. E.,
Ed. D.,
Research Assistant.

APPENDIX E

SURVEY OF 1966 ACTIVITIES OF 1965 LEAVING CERTIFICATE CANDIDATES FROM SECONDARY SCHOOLS LOCATED IN THE MITCHELL, LACHLAN, MACQUARIE REGIONS.

SECTION A

1. Public and private secondary schools located in the Mitchell, Lachlan and Macquarie regions of New South Wales presented 1,227 candidates for the 1965 Leaving Certificate Examination. Numbers of students from each town are shown in Table 1.

Table 1: Number of Candidates For The 1965 Leaving Certificate Examination From Schools In The Mitchell, Lachlan and Macquarie Regions By Town and Sex.

Town	Male	Female	Total
Bathurst	158	75	233
Condobolin	7	3	10
Coonabarabran	21	15	36
Coonamble	12	7	19
Cowra	36	34	70
Dubbo	83	46	129
Forbes	54	32	86
Gilgandra	7	9	16
Grenfell	13	19	32
Lithgow	32	27	59
Mudgee	28	30	58
Narromine	2	3	5
Nyngan	5	1	6
Oberon	2	6	8
Orange	136	93	229
Parkes	31	25	56
Peak Hill	4	1	5
Perthville	-	19	19
Wellington	11	20	31
Young	29	23	52
Kandos	7	5	12
Galong	17	-	17

....Contd.

(Cont'd.)

Town	Male	Female	Total
Murrumburrah	10	5	15
West Wyalong	13	11	24
TOTAL	718	509	1,227

SOURCE: Board of Secondary School Studies - Leaving Certificate Results.

2. Late in 1966 or early in 1967 a questionnaire, (see pp) related principally to their 1966 activities, was forwarded to 1,192 of these candidates. The 35 not sent questionnaires included 15 who either lived or were travelling overseas, and 11 for whom no address could be obtained.

3. The total number of completed questionnaires received and processed was 1,006, providing an 82 per cent return on the total study population of 1,227. This is a high percentage return, even when considering that 327 follow-up questionnaires were sent out. Twelve received late were not included in this data.

4. It would appear that no greater interest was generated - as measured by comparative numbers of respondents - in towns and cities seeking establishment of a College locally, than in towns providing less publicity in this matter and not seeking to make submissions to the Committee of Enquiry. For many students, absence from the investigation area in 1966 may have negated possible effects of publicity.

5. Leaving Certificate data was available for all the study population. On this data, viewed from criteria such as pass or fail, matriculation, and best five matriculation subjects, the respondents and non-respondents were relatively comparable.

6. The questionnaire data, and reported results, then, were derived from 1,006 subjects, of whom 557 were males and 449 were females. Table 2 reports the location of the subjects in 1966.

TABLE 2: LOCATION OF 1965 LEAVING CERTIFICATE CANDIDATES IN 1966, BY TOWN OR AREA AND SEX

TOWN	M	F	TOTAL	AREA (Cont'd)	M	F	TOTAL
Bathurst	48	54	102	Metropolitan	141	92	233
Condobolin	2	2	4				
Coonabarabran	6	2	8				
Coonamble	4	3	7	Metropolitan (Hospital, Uni.)	22	49	71
Cowra	4	9	13	A.C.T.	17	17	34
Dubbo	20	20	40	Murrumbidgee	21	8	29
Forbes	13	11	24				
Gilgandra	1	4	5	Wollongong-Illawarra	25	2	27
Grenfell	2	6	8	New England	13	7	20
Lithgow	11	11	22				
Mudgee	15	11	26	Sydney (Non-Metropolitan)	9	9	18
Narromine	2	2	4	Other State	8	3	11
Nyngan	3	1	4	Upper Darling	5	3	8
Oberon	2	4	6	Central Darling	6	1	7
Orange	34	34	68	Namoi	3	1	4
Parkes	14	3	17				
Peak Hill	2	-	2	Southern Tablelands	3	-	3
Perthville	-	-	-	Upper Hunter	1	2	3
Wellington	3	2	5	Central Murray	2	-	2
Young	9	9	18	Upper Murray	1	1	2
Kandos	2	1	3	Richmond-Tweed	1	-	1
Galong	4	-	4				
Murrumburrah	-	1	1	Monaro South Coast	1	-	1
West Wyalong	2	5	7	Newcastle	6	4	10
				Oxley	-	-	-
AREA				Murray-Darling	-	-	-
				Clarence	-	-	-
Mitchell	14	21	35	Overseas	-	-	-
Lachlan	33	17	50				
Macquarie	20	17	37	**TOTAL**	557	449	1,006

7. Just over one half (520) of the subjects were located in the Mitchell, Lachlan and Macquarie regions in 1966. Major centres of location for those not remaining in the area were Sydney and suburbs 322, Australian Capital Territory 34, Murrumbidgee Region 29, and Wollongong-Illawarra Region 27.

8. Location of subjects within the enquiry area is shown in Table 3. It should be noted that while 520 individuals remained in the area, 138 of them were repeating Fifth Year.

TABLE 3: REGIONAL LOCATION OF SUBJECTS, BY SEX

Region	Male	Female	Total
Mitchell	126	136	262
Lachlan	85	63	148
Macquarie	59	51	110
Sub-Totals	270	250	
TOTAL			520

STUDIES IN 1966

9. Eighty-two per cent., or 1,018, of the total study population gained the Leaving Certificate in 1965. Among this number there were 678 who matriculated to the University of Sydney or the University of New South Wales. Data was not available on individuals who were successful at the subsequent Matriculation Examination.

10. Almost one half of the respondents were engaged in full-time studies in 1966. Table 4 indicates the number of students attending the various types of institutions.

TABLE 4: NUMBER OF SUBJECTS TAKING COURSES FULL-TIME IN 1966, BY TYPE OF INSTITUTION AND SEX

Type of Institution	Male	Female	Total
Secondary School	85	55	140
University (Uni. college)	86	51	137
Teachers College	36	82	118
Technical College	7	36	43
Agricultural College	18	-	18
Other Institution	6	6	12
Theological College	11	-	11
Business College	-	8	8
TOTAL	249	238	487

SUMMARY OF COURSES TAKEN ON A FULL-TIME BASIS DURING 1966, BY TYPE OF INSTITUTION, PRINCIPAL SUBJECT AND SEX.

	Male	Female	Total
Secondary School -			
Leaving Certificate	85	55	140
Agricultural College -			
General Agriculture	9	-	9
Farm Management	6	-	6
Food Technology	2	-	2
Farm Certificate	1	-	1
Teacher Training -			
Primary	28	34	62
Music	-	2	2
Infants, Kindergarten	-	32	32
Junior Secondary	4	5	9
Manual Arts, Art	4	2	6
Home Economics	-	6	6
Needlework	-	1	1
Technical College[1] -			
Typing, Shorthand, etc.	-	22	22
Sciences	-	4	4
Commercial	-	4	4
Business College -			
Typing, Shorthand, Secretarial	-	8	8
Theological College -			
Roman Catholic	11	-	11
University -			
Arts	17	35	52
Science	20	3	23
Pharmacy	2	4	6
Law	2	-	2
Medicine	2	1	3
Economics	10	-	10
Architecture	4	-	4
Veterinary Science	6	-	6
Rural Science	4	2	6
Agricultural Economics	3	-	3
Commerce	2	1	3

[1] Other Courses -

Male: Engineering (1), Interior Decorating(1), Electronics (1), Mechanics (1), Agriculture (3).

Female: Fashions (2), Accountancy (1), Leaving Certificate or Matriculation (2).

11. A relatively large number of students - 140 - repeated Fifth Year. Undoubtedly, some returned to school to improve their chances of obtaining financial assistance for further studies, as 95 of them had gained the Leaving Certificate the previous year.

12. Some type of financial assistance was available to 257 of the full-time students. A high proportion of this assistance took the form of Teachers' College Scholarships to Colleges and Universities. Types of assistance received are reported in Table 5.

TABLE 5: NUMBERS OF FULL-TIME STUDENTS RECEIVING FINANCIAL ASSISTANCE BY TYPE OF ASSISTANCE AND SEX

Type of Financial Assistance	Male	Female	Total
Commonwealth Scholarship - fees only	12	3	15
Commonwealth Scholarship - fees and living allowance	28	19	47
Teachers' College Scholarship	56	98	154
Public Service Board Traineeship	11	4	15
Bursary	3	2	5
Sponsorship/Cadetship	7	1	8
Other	5	6	11
More than one form of assistance	1	1	2
TOTAL	123	134	257

13. A further 265 subjects were engaged in part-time studies. Numbers on Table 5 appear to indicate that a joint work-study programme is more acceptable - or more available - to males than to females.

TABLE 6: NUMBER OF SUBJECTS UNDERTAKING COURSES PART-TIME IN 1966, BY TYPE OF INSTITUTION AND SEX

Type of Institution	Male	Female	Total
Technical College	108	33	141
Other Institution (includes nursing)	9	51	60
University (Uni. college)	25	1	26
Correspondence Course	21	1	22
Business College	2	6	8
Evening College	5	3	8
TOTAL	170	95	265

14. The majority of male students were in attendance at Technical Colleges. Courses in which more than one of the study group was engaged are shown in Table 7.

TABLE 7: NUMBER OF MALE PART-TIME STUDENTS AND TYPE OF COURSE FOLLOWED IN A TECHNICAL COLLEGE

Course	Number of Students
Agriculture, Farm mechanics, sheep and wool, etc.	21
Accountancy, Law/Accountancy, Commerce	21
Matriculation	9
Electrical trades	9
Fitting and machining	6
Metallurgy	6
Typing, Shorthand	6
Surveying, Survey Draughtsman	5
Engineering trades	5
Mechanic: auto, aircraft, etc.	4
Architectural Draughtsman	2
Building	2
TOTAL	96

15. Part-time female students at technical colleges were engaged principally in Shorthand and Typing courses (22), Sciences (3), Accountancy (2), and Surveying-Survey Drafting (2).

16. University students took the following courses part-time: Metallurgy (9), Engineering (4), Law (4) Rural Science (3), Commerce (2), Arts (1 male, 1 female), Agricultural Science (1), and Dentistry (1).

17. Nursing was the part-time course followed by 47 of the 51 females listed under Other Institutions. The remaining 4 were in Accountancy, Librarianship, Music and Dress designing. Two males were in Accountancy, and two in Business Administration.

18. Most popular correspondence courses were Leaving Certificate (4 male, 1 female), Accountancy, Bookkeeping (4), Survey Draughting (4), Maths (3), and Law (2). Other courses followed by individuals were Local Government, Pilot's Licence, Wool Classing, and Transport Administration.

19. A smaller proportion of part-time than full-time students were receiving financial assistance. Among the 33 students reported in Table 8 as receiving non-Commonwealth help, assistance was provided by 18 different organizations.

TABLE 8: NUMBERS OF PART-TIME STUDENTS RECEIVING FINANCIAL ASSISTANCE BY TYPE OF ASSISTANCE AND SEX

Type of Financial Assistance	Male	Female	Total
Commonwealth Scholarship - fees only	5	-	5
Commonwealth Scholarship - fees and living allowance	1	-	1
Sponsorship/Cadetship	18	1	19
Other	10	4	14
More than one form of assistance	1	-	1
TOTAL	35	5	40

SECTION B

SUBJECTS RESIDING IN THE MITCHELL, LACHLAN, MACQUARIE REGIONS IN 1966.

1966 ACTIVITIES

(A) Females

449 females sat for the 1965 Leaving Certificate Examination in the Mitchell, Lachlan, Macquarie regions and 407 reported their 1965 address as being within the study area. Of this 407, 250 listed their 1966 address as being within the area[1].

(i) Full-Time Studies

Of these 250 still residing in the area, one half (128) were full-time students, in the following institutional distribution:-

Type of Institution	Number of Students
Secondary School	48
Technical College	28
Teachers College	49
University	2
Business College	1
TOTAL	128

Numbers of students, and courses undertaken in Teachers Colleges and Universities are listed below:-

(a) Teachers College -

Course	Number of Students
Primary	22
Nursery, Infants, etc. ..	27
TOTAL	49

(b) University[1]-

Course	Number of Students
Arts	1
Rural Science	1
TOTAL	2

---

[1] It is evident that some students listed the address of their parents and others their address while attending an institution.

(ii) Part-Time Studies

Forty students were engaged in part-time studies in the following types of institutions:-

Type of Institution	Number of Students
Technical College	23
University College	1
Business College	3
Evening College	1
Other Institutions	12
TOTAL	40

Of the 23 girls attending Technical College, 21 were studying Shorthand, Typing.

Of the 12 studying at Other Institutions, all were training to be Nurses.

The 1 female at University was an Arts Student.

Employment

The major source of employment for the females was in Clerical and Secretarial duties. Types of employment in which more than 1 girl was engaged are listed below:-

Type of Employment	Number of Employees
Clerk, Trainee Accountant, Librarian, etc.	42
Bank Clerk	39
Nursing, Health, etc.	16
Secretarial employment	16
Accounting, Machinist	5
Telephonist	4
Retail work	4

..Cont'd.

(Cont'd)

Type of Employment	Number of Employees
Laboratory assistant	3
Farming, Agriculture, etc.	2
TOTAL	131

(B) Males

Male subjects listing their residence in the Mitchell, Lachlan, Macquarie Regions in 1965 numbered 493. Of these, 141 resided in the Metropolitan area in 1966 and 265 remained in the study area.

Of this 265, 96 were full-time students in 1966 and 91 were part-time students.

(i) Full-Time Studies

As may be noted in the institutional distribution of students, the majority of students were either repeating Fifth Year or attending a Teachers' College. It is evident that the 4 males attending University have listed their home address when asked where they were living during 1966.

Type of Institution	Number of Students
Secondary School	62
Teachers' College	23
University	4
Technical College	3
Agricultural College	2
TOTAL	94

Twenty-one of the trainee teachers were undertaking a primary course, probably at Bathurst Teachers College. The remainder, Manual Arts and Junior Secondary trainees, apparently followed the same principle in listing the 1966 address as did the University students.

There was one University student studying each of Science, Agricultural Science, Rural Science and Agricultural Economics.

Agricultural College students were engaged in Food Technology or Farm Management Courses.

(ii)Part-Time Studies

In all, 91 students reported being engaged in part-time studies during 1966. The majority of these were taking Technical College courses.

Type of Institution	Number of Students
Technical College	66
Correspondence College	18
Other Institution	4
University	1
Business College	1
Evening College	1
TOTAL	91

Principal Technical College courses and number of students were:-

Agriculture, Sheep and Wool, etc.	19
Accountancy, Commerce	16
Electrical trades	8
Matriculation	6
Fitting and Machining	4

Correspondence studies included Local Government, Leaving Certificate, individual Leaving Certificate Subjects, Accountancy, Law, Theory for Pilot's Licence, Wool Classing and Survey Draughting.

Classified under "Other Institutions" were Business Administration and Fire Board Examinations.

Employment

It may be noted that the major source of employment for both males and females was in the position of clerk.

Type of Employment	Number of Employees
Clerks, Trainee Accountants	42
Bank Clerks	37
Farming	37
Wholesale-Retail work	16
Mechanic - Motor, radio, etc.	12
Miscellaneous, semi or unskilled	6
Sheep and Wool, Agriculture, Wool classing, etc.	6
Draughtsman etc.	5
Jackeroo	3
Engineering/Surveying trainee	3

Other employment included Cartography, Television Programmer, Miner, Health Inspector trainee, Panel Beating, trainee Linesman, Window Dresser, Cadet Journalism, Valuer and trainee Executive.

SECTION C.

SUBJECTS RESIDING IN THE MITCHELL, LACHLAN, MACQUARIE REGIONS IN 1965 BUT RESIDING IN THE METROPOLITAN AREA IN 1966.

1966 ACTIVITIES

(A) Females

Of the 449 females who sat for the 1965 Leaving Certificate Examination in the Mitchell, Lachlan, Macquarie region, 407 reported their home address during 1965 as being within the study area.

(i) Full-Time Studies

Of the 407 students, 132 were living in the Metropolitan area in 1966 and 68 were full-time students. The student distribution was:-

Type of Institution	Number of Students
University	35
Teachers College	21
Technical College	5
Business College	2
Secondary School	2
Other Institutions	3
TOTAL	68

Numbers of students, and courses taken in Teachers Colleges and Universities are listed below.

(a) Teachers College -

Course	Number of Students
Nursery	5
Primary	4
Junior Secondary	3
Home Economics	3
Art, Manual Arts, ...	2
Music	2
Commerce (Jun.Sec.)	1
Needlework	1
TOTAL	21

(b) University -

Course	Number of Students
Arts	22
Pharmacy	4
Science	3
Medicine	1
Food Technology	1
Textile Technology	1
Commerce	1
Social Work	1
Physiotherapy	1
TOTAL	35

(ii) Part-Time Studies

Forty-one students were engaged in part-time studies in the following types of institutions:-

Type of Institution	Number of Students
Technical College	6
Business College	3
Evening College	1
Other Institutions	31
TOTAL	41

Of the thirty-one part-time students in Other Institutions, thirty were training to be nurses. Five other subjects reported themselves employed as nurses but not undertaking part-time studies.

Employment

The major source of employment for the country girls residing in the Metropolitan area was in clerical and secretarial duties. Types of employment in which more than one girl was engaged are listed below:-

Type of Employment	Number of Employees
Clerk, Trainee Accountant, Library Assistant	13
Telephonist	5
Bank Clerk	4
Secretarial Duties	3

(B) Males

Of the 493 males residing in the Mitchell-Lachlan-Macquarie Regions in 1965, 141 listed their residence as Metropolitan in the following year.

Of this 141, 77 reported themsleves as being full-time students, and 38 as part-time students.

(i) Full-Time Studies

The majority of students were engaged in University studies, as is shown in the numbers attending various types of institutions:-

Type of Institution	Number of Students
University	50
Secondary School ,, ...	7
Theological College	5
Teachers' College	4
Agricultural College	4
Other Institutions	4
Technical College	3
TOTAL	77

To provide a more complete picture of the type of course undertaken, a distribution of numbers in specific courses at each institution is provided:-

Type of Institution	Course	Number of Students
University	Science	12
	Arts	10
	Veterinary Science	6
	Economics	5
	Engineering	4
	Agricultural Science	3
	Architecture	3
	Commerce	2
	Pharmacy	2
	Law	11
	Medicine	1
	Forestry	1
Teachers College	Junior Secondary	2
	Primary	1
	Manual Arts	1
Agricultural College	General Agriculture	3
	Food Technology	1
Technical College	Mechanics	1
	Electronics	1
	Interior Design	1
Other Institution	P.M.G. Engineering	3
	Psychiatric Nursing	1

(ii)Part-Time Studies

A further 38 males were undertaking part-time studies. More than half of them attended Technical Colleges, and courses included Surveying-Survey Draughting (4), Engineering Trades (3), Accountancy-Commerce (2), Architectural Draughting (1).

University studies were taken by 5 Engineering students, and 1 each in Law, Dentistry and Commerce.

As with the comparable group of females, the major employment classification of fully employed males may be termed "clerical" with 60 per cent. of them in that type of position.

Type of Employment	Number of Employees
Clerks, Trainee Accountants, etc.	21
Bank Clerks, Insurance Clerks, etc.	14
Engineering/Surveying trainee	9
Technology trainee	3
Science trainee	3
Draughtsman trainee	4
Cartographer	4
TOTAL	58

SECTION D

CHOICE OF OCCUPATIONS.

Subjects were asked to indicate the occupation they had hoped to follow after leaving school. Provision was made for recording a first and a second choice. Of the 1,006 respondents, 107 (69 males and 38 females) either did not list a choice, or listed one in a manner which did not indicate a specific occupation, for example, apprenticeship. No second choice was given by 217 individuals. It is possible that different placement of these items in the initial questionnaire sequence would have resulted in a better response.

The reader should bear in mind choices were written at least a year after the majority of respondents had left school.

Listed below, in order of preference, are the first choices of occupation for males and females.

Males -

Occupation	Number Choosing
Teaching (Non University based)	104
Agricultural (with training, e.g. wool classer, agronomist etc.)	49
Engineering and/or Surveying	45
Clerk, Accountant, etc.	36
Science	28
Farming (non-training)	25
Grazier	18
Law	18
Military	17
Veterinary Science (Surgeon)	17
Mechanic (motor, radio, etc.)	16
Architecture	16
Draughting	14
University studies (unspecified)	12
Commerce	9
Civil aviation	9
Journalism	8
Pharmacy	7
Teaching (University based)	6[1]
Wholesale - Retail work	6
Valuer	3
Drama, Script-writer	3
Technology	2
Pathology	2
Vocational guidance	2
Butcher	2
Executive career	2

Occupations reported as first choice by one person were: Nursing, Medicine, Masseur, Commercial Art, Diplomatic Corps, Chiropractor, Carpentry, Meat Inspection, Astronomy, Forestry, Professionalogy, Town Clerk.

[1] It should be noted that only when teaching was specified as subsequent to completion of a University course, or was related to a course only available in Universities, was the choice classed as University based.

Females -

Occupation	Number Choosing
Teaching (Other institution)	257
Nursing	35
Secretarial work	16
Clerk, Accountant, etc.	15
Teaching (University based)	10
Science	8
Physiotherapy	8
Librarian	6
Almoner, social work	5
Pharmacy	5
Journalism	5
Technology	4
Military	4
Commerce	4
Civil aviation	4
Masseur	3
Commercial Art	3
Law	2
Medicine	2
Draughting	2
Hairdressing	2
Cooking demonstration	2
Dress designing	2

Occupations chosen by one person were: Engineering, Wool classing, Dramatist, Veterinary Surgeon, Pathologist, Vocational guidance, and Advertising.

It is evident that types of training suggested by Committee members as appropriate for a College of Advanced Education in the investigation area reflect the types of training that would permit the majority of these 1965 Leaving Certificate candidates to engage in their preferred occupation. Related data for present Fifth and Sixth Form students has not yet been processed.

Higher Education Enquiry,
Educational Research Unit,
University of New South Wales.

Ref. No.

Town	Student
1-2	3-5

Office use only

1. Surname ______________________ Mr./Mrs./Miss (delete whichever does not apply)

Other Names ______________________ 6 ________

2. Date of Birth ______________________ 7-8 ________

3. If not born in Australia, date of entering Australia ____________ 9-10 ________

4. Address (where living during 1966) ______________________
______________________ 11-12 ________

5. Home address, 1965 (if different from above) ______________________ 13-14 ________
______________________ 15 ________

6. Home address during first year of secondary school is different from above ______________________ 16-17 ________
______________________ 18 ________

7. During the last two years of your secondary schooling were you living at home or boarding ? (Place a tick where appropriate)

	1964	1965
Living at home	☐	☐
Boarding at school	☐	☐
Boarding at a hostel	☐	☐
Boarding privately	☐	☐

19-20 ________

8. School attended in 1965 ______________________ 21 ________

9. Other secondary schools attended (if any) -

Name of School	Years of Attendance
______________________	____________
______________________	____________
______________________	____________

22 ________

10. What are your parents' occupations? (Be as specific as possible)

Father ______________________ 23-24 ________

Mother ______________________ 25-26 ________

OCCUPATION 1966

Full-time Student

11. Were you a full-time student in 1966? Yes ___ No ___ 27

If so, underline the type of institution attended and give its name and the name of the course.

Type	Name	Course	
Secondary School			
Technical College			
Agricultural College			
Teachers' College			28
University			
Business College			
Other institution			29-30

12. If you were a full-time student receiving financial assistance, please indicate the nature of such assistance.
(Place a tick where appropriate)

Commonwealth Scholarship - Fees only ________
- Fees and living allowance ________

Teachers' College Scholarship ________

Public Service Board Traineeship ________

Bursary (details:) ________

Cadetship (details:) ________

Other (details:) ________ 31

13. Part-time Student

Were you a part-time student in 1966? Yes ___ No ___ 32

If so, underline the type of institution attended and give its name and the name of the course.

Type	Name	Course	
Technical College			
University			
Business College			33
Evening College			
Other institution			34-35

14. If you were a part-time student receiving assistance in the form of a scholarship, cadetship, or other assistance for your studies, please indicate the nature of the assistance. (Place a tick where appropriate)

Commonwealth Scholarship - Fees only ________
- Fees and living allowance ________

Cadetship (details:) ________

Other (details:) ________ 36

EMPLOYMENT

15. If you are employed, what is your occupation ? ______________________ 37-38

What is your employer's trade, profession, etc. ? ______________________ 39-40

16. What occupations have you followed since January, 1966 ?

Occupation	Period	
____________	____________	41
____________	____________	42
____________	____________	43-44
____________	____________	45-46
____________	____________	

PLANNED OCCUPATION

17. When you were in 5th Year at school, what occupation did you hope to follow after leaving school ? 47

______________________ 48-49

18. What was your second choice for an occupation ? 50

______________________ 51-52

19. Do you intend to change your occupation ?

______________________ 53

If so, what is your intended occupation ?

______________________ 54-55

OFFICE USE ONLY

	P/F	____________	(56)	56
	S	____________	(57-58)	57-58
	LP	____________	(59-60)	59-60
	SP	____________	(61-62)	61-62
	MS	____________	(63)	63
	MN	____________	(64)	64

APPENDIX F

THE STUDENT POOL

Introduction

1.1 It is unfortunate that, at the time of presenting this report, age/group population statistics from the 1966 census were not available. These would have supplemented the 1954 and 1961 statistics to which reference is made, and permitted both a review of population trends over a twelve year period and an estimation of college potential relative to observable trends in retention rates. Background population statistics are presented in table 1 :

TABLE 1 : Selected Age Group Population Statistics by Region. (1)

Region	1954 Census			1961 Census		
	0-4	5-9	10-14	0-4	5-9	10-14
Mitchell	11,934	11,409	9,468	11,315	10,525	10,598
Lachlan	11,227	9,479	7,411	10,567	9,830	8,468
Macquarie	8,152	6,849	5,314	8,353	7,631	6,213
Total	31,313	27,737	22,193	30,235	27,986	25,279

SOURCE : Census Bulletin.

1.2 The 1954 0-4 age group would have been 7-11 at the time of the 1961 census and 12-16 at the corresponding time in 1966. From this group the oldest forms the nucleus of candidates for the 1967 Higher School Certificate Examination.

Country Students at City Schools

1.3 Data for the most recent census was gathered when schools were in session. This means the regional and local population may be inflated or deflated in accordance with the number of school pupils entering or leaving the area. It is considered that the secondary school age group figures for the area under discussion are somewhat depressed due to this factor.

1.4 In order to gain some idea of the exodus from the country we contacted 14 prominent city schools seeking the number of secondary enrolees from the Mitchell, Lachlan and Macquarie regions. When this report was written, replies had been received from 11 schools.

---

(1) For more detailed statistics, see appendix C, Population Characteristics, pp. 84-89.

The ten schools with students from the inquiry area are as follows with the number of students shown in brackets :

The Scots College	(119)
The King's School	(115)
St. Joseph's College	(100)
St. Ignatius College	(67)
Abbotsleigh	(51)
Methodist Ladies' College, Burwood	(48)
Barker College	(27)
Sydney Church of England Grammar School for Girls, Darlinghurst	(21)
Presbyterian Church of N. S. W. Ladies' College, Croydon	(18)
Sydney Grammar School	(11)
TOTAL	577

Although this number does not represent the total number of country students, 577 is far in excess of the students reported to enter the inquiry area to enrol in secondary schools.

1.5 It is conceivable that some of the students would return and seek a tertiary qualification from the country college. In our preliminary investigation it was not considered sufficiently profitable to attempt to contact country students attending city schools, however, once the initial educational programme is announced this group should be regarded as a source of potential enrolments.

The Retention Power of Schools

1.6 Observation of trends in the retention power of schools (1) permits reasonable estimates to be made of the number of potential tertiary education students from schools in the area. In recent years, the proportion of students remaining at school to complete a full secondary course has been steadily increasing. This increase, when comparing successive school generations up to the last year of the Leaving Certificate, for all students (1965) is reported in tables 2, 3 and 4. (2)

---

(1) Derived from fifth year enrolment as a percentage of first year enrolment four years earlier.

(2) The desire to include first term figures for 1967 led to use of first term data for State schools. Relevant data for non-State schools was available only from age-grade distributions (August).

TABLE 2 : Retention Power of Secondary Schools (1)

Year of Entry	First Year			Year of L. C.	Fifth Year			Rate of Retention
	M	F	Total		M	F	Total	
1958	2,638	2,279	4,917	1962	461	365	826	16.8
1959	2,476	2,390	4,866	1963	584	485	1,069	22.0
1960	2,637	2,390	5,027	1964	636	467	1,103	22.0
1961	2,462	2,382	4,844	1965	730	520	1,250	25.8

SOURCE : N.S.W. Department of Education, First Term (May) for State schools; Age-grade (August) for non-State schools.

NOTE : Pre-1958 data was not available for non-State schools.

1.7 In State secondary schools the retention rate for the 1954-1958 school generation was 12.6 from 374 fifth year students. Numbers in fifth year for the next three school generations were 400, 419 and 487 and the respective proportions of first year enrolments were 12.9, 13.8 and 15.7. Data for the next four generations for State schools is presented in table 3 and corresponding figures for non-State schools in table 4.

TABLE 3 : Retention Power of State Secondary Schools.

Year of Entry	First Year			Year of L. C.	Fifth Year			Rate of Retention
	M	F	Total		M	F	Total	
1958	2,029	1,588	3,617	1962	293	230	523	14.5
1959	1,827	1,694	3,521	1963	404	289	693	19.7
1960	1,974	1,692	3,666	1964	418	306	724	19.7
1961	1,796	1,693	3,489	1965	463	353	816	23.4

1.8 Figures for first form since 1961 show a rise to 3,830 in 1962 (sixth form 1967), a low of 3,671 in 1964, followed by 3,792 in 1965, 3,930 in 1966 and 3,982 in the current year.

---

(1) *Unless otherwise stated, data refers to schools in the* Mitchell, Lachlan and Macquarie regions of the State.

TABLE 4 : Retention Power of non-State Secondary Schools.

Year of Entry	First Year			Year of L. C.	Fifth Year			Rate of Retention
	M	F	Total		M	F	Total	
1958	609	691	1,300	1962	168	135	303	23.3
1959	649	696	1,345	1963	180	196	376	28.0
1960	663	698	1,361	1964	218	161	379	27.8
1961	666	689	1,355	1965	267	167	434	32.0

1.9 These tables reveal a yearly increase in rate approximating 3 per cent, with the non-State schools maintaining about an 8 per cent higher retention rate than the State schools.

1.10 Several facts should be borne in mind when reviewing these retention rates. First, they are derived from May or August first and fifth year enrolments and, secondly, no compensation is made for attrition during the rest of the school year - in fifth year it averaged about 1 per cent - or for numbers repeating a year. Examination of relevant figures reveals that the percentage of repeats in fifth year was proportionately higher than that in first year, resulting in a reported retention rate which is slightly inflated but in keeping with other reports of retention rates.

1.11 Table 5 shows the number of repeats in fifth year over the four year period 1962-1965. It is apparent that many students repeating the year had already gained the Leaving Certificate.

TABLE 5 : Number of Students repeating Fifth Year for years 1962-1965 inclusive.

Year	Fifth Year May Enrolment	First-time Students	Repeat Students	Repeat Percent of Fifth Year	Repeats Previously Successful
1962	826	735	91	11.0	43
1963	1,069	940	129	12.1	70
1964	1,103	938	165	15.0	109
1965	1,250	1,084	166	13.3	95

Leaving Certificate Pass Rate

1.12 Another factor influencing the number of students available for tertiary education is the pass rate at the end of secondary school. Commencing with the 1961 examination, a progressive rise in the pass rate, from 75.7 per cent to almost 83 per cent, was noted. It is reasonable to assume that approximately 80 per cent of the candidates for the Higher School Certificate Examination will be successful in, at least, four subjects or their equivalents.

The Six-Year Secondary Programme

1.13 Up to this point, the discussion has been focused on students preparing for the Leaving Certificate Examination. In 1967, the first candidates will be presented for the Higher School Certificate Examination, hence, discussion related to rate of retention and potential enrolments in tertiary education is, of necessity, based on short-term data. It is, however, possible to make some relevant observations.

1.14 Following the introduction of the 6-year secondary school course in 1962, there has been a change in the pattern of enrolment beyond the third form. The 1963 and 1964 fourth year students (table 6) were in the 5-year secondary school programme, while the 1965 and 1966 fourth form students comprise the first groups to attempt the School Certificate Examination.

TABLE 6 : Fourth Form Enrolments for Years 1963-1967 inclusive, by Type of School, Number and Yearly Percentage Growth.

Type of School	1963	1964	1965	1966	1967
State	885	942	1,458	1,660	1,774
Non-State	388	481	686	679	728
Totals	1,273	1,423	2,144	2,339	2,502
Number Increase		150	721	195	163
Percentage Increase		11.8	50.7	9.1	7.0

1.15 It would appear that the major factor influencing the sharp rise in fourth form enrolment between 1964 and 1965 was the introduction of the examination for the basic school qualification, the School Certificate, into fourth form. Previously, candidates for the Intermediate Certificate Examination had been presented for examination following completion of a 3-year course. When interpreting data in table 6 one should remember that some of the percentage increase for subsequent years may be attributed to students repeating the year.

1.16 With the current sixth form enrolment of 535 in State schools as a basis, and not considering attrition during second and third terms, it is estimated that approximately 580 current fifth form students will be in sixth form in May, 1968. This data is presented and the estimate explained in table 7.

TABLE 7 : Estimate of Higher School Certificate Examination Candidates in 1968 from State Secondary Schools in the Mitchell, Lachlan and Macquarie Regions.

A. Numbers repeating Leaving Certificate (1965).
B. Candidates for the 1965 Leaving Certificate (includes A)
C. May term return for 1966 Fifth Form.) same student
D. May term return for 1967 Sixth Form.) group.
E. Attrition for 1966 Fifth to 1967 Sixth.
F. May term return for 1967 Fifth Form.

School	A	B	C	D	E	F
Bathurst High School	27	87	55	49	6	58
Condobolin High School	-	10	6	6	-	4
Coonabarabran High School	5	36	16	10	6	19
Coonamble Intermediate High School	3	11	9	7	2	7
Cowra High School	3	54	42	38	4	54
Dubbo High School	21	117	94	84	10	90
Forbes High School	1	38	32	28	4	42
Gilgandra High School	7	16	13	12	1	21
Henry Lawson (Grenfell) High School	8	36	22	18	4	16
Kandos Intermediate High School	1	12	10	8	2	20
Lithgow High School	11	59	56	49	7	52
Mudgee High School	5	46	25	21	4	39
Murrumburrah Intermediate High School	2	15	7	5	2	14
Narromine D.R.S.	-	5	5	2	3	6
Nyngan Intermediate High School	-	6	3	1	2	5
Oberon Central School	2	8	7	5	2	5
Orange High School	16	116	98	85	13	97

Table cont'd...........

TABLE 7 : cont'd........

School	A	B	C	D	E	F
Parkes High School	8	49	44	30	14	50
Peak Hill Central School	1	5	6	6	-	3
Wellington High School	1	26	29	21	8	30
West Wyalong High School	2	24	11	9	2	14
Young High School	2	33	49	41	8	49
TOTALS	126	809	639	535	104	695

NOTES :

(a) In 1965, the loss of students from State Secondary schools between May and the Leaving Certificate Examination was negligible, 7 of a total of 816 leaving during this period.

(b) The attrition that took place between May, 1966, and May, 1967, with Fifth Form moving to Sixth Form, was 16.28 per cent, representing a loss of 104 students on a 1966 enrolment of 639 and leaving 535 students.

(c) Extrapolating to the 1968 Sixth Form on a comparative basis (16.28 per cent loss on 695), we find a May, 1968, Sixth Form student population of 582, representing 108.8 per cent of the 1967 figures.

(d) The May 1967 (Higher School Certificate) percentage of May 1965 (Leaving Certificate) potential candidates for examination was 65.56. Comparison of "first-time" candidates raises this percentage to 78.12.

1.17 In table 8 is presented summary data for non-State schools. Using the previously described method for estimating sixth form enrolments we find a wastage rate of 14.7 (based on August, not May, enrolments) and a possible 1968 sixth form enrolment of 199 at the end of first term. This represents 114 per cent of the 1967 sixth form May enrolment.

TABLE 8 : Summary Data for Non-State Schools.

Form	1966	1967
First	979	910
Fourth	634	728
Fifth	204	233
Sixth		174

1.18 Earlier we discussed some effects of the reorganization of secondary schools in implementing the Wyndham Scheme. In several towns in the area, Catholic schools, which previously presented candidates for the Leaving Certificate Examination, no longer offer instruction beyond the School Certificate level. This has resulted in students transferring to State schools to undertake senior studies and in a lower retention rate for Catholic schools, for example, in the preceding table, fifth form is 32 per cent of fourth form in both years.

1.19 In Orange, De La Salle College has restricted its courses to the School Certificate level and boys who wish to continue beyond this level enrol at Santa Maria College.

Student Numbers in Relation to Location of the College

1.20 Local establishment of the proposed college was sought by six centres. These were : Bathurst, Dubbo, Forbes, Parkes, Peak Hill and Orange. In table 9 the numbers of students attending (in May, 1967) schools in each of these centres are outlined.

1.21 Daily travel may be required of some students so we have, in table 10, presented the number of Leaving Certificate candidates in 1965 and the potential Higher School Certificate candidates in 1967 within selected road-mile distances of each of these centres.

TABLE 9 : Numbers in Primary and Secondary Schools in Towns/Cities seeking Local Establishment of the proposed College of Advanced Education.

City/Town	Type of School	Numbers
ORANGE	State Infants and Primary	2,515
	State Secondary	1,318
	Non-State Infants and Primary	1,341
	Non-State Secondary	1,012
	TOTAL	6,186

Table continued ......

TABLE 9 : continued .....

City/Town	Type of School	Numbers
BATHURST	State Infants and Primary	1,646
	State Secondary	1,000
	Non-State Infants and Primary	1,094
	Non-State Secondary	1,276
	TOTAL	5,016
DUBBO	State Infants and Primary	2,234
	State Secondary	1,305
	Non-State Infants and Primary	699
	Non-State Secondary	328
	TOTAL	4,566
FORBES	State Infants and Primary	1,015
	State Secondary	601
	Non-State Infants and Primary	527
	Non-State Secondary	496
	TOTAL	2,639
PARKES	State Infants and Primary	1,222
	State Secondary	741
	Non-State Infants and Primary	437
	Non-State Secondary	93
	TOTAL	2,493
PEAK HILL	State Infants and Primary	654
	State Secondary	176
	Non-State Infants and Primary	42
	Non-State Secondary	-
	TOTAL	872

SOURCE : N. S. W. Department of Education Term Returns, May, 1967.

TABLE 10 : Number of Leaving Certificate (1965) and Higher School Certificate (1967) Candidates within selected road mile distances (1) of Cities/Towns seeking the proposed College.

(a) Fifty Miles -	1965	1967	(a) Fifty Miles -	1965	1967
ORANGE			BATHURST		
Orange	229	148	Bathurst	233	140
Bathurst	233	140	Orange	229	148
			Lithgow	59	49
			Oberon	8	5
	462	288		529	342
DUBBO			PARKES		
Dubbo	129	84	Parkes	56	30
Wellington	31	21	Forbes	86	48
Gilgandra	16	12	Peak Hill	5	6
Peak Hill	5	6			
Narromine	5	2			
	186	125		147	84
FORBES			PEAK HILL		
Forbes	86	48	Peak Hill	5	6
Parkes	56	30	Narromine	5	2
Grenfell	36	18	Parkes	56	30
	178	96		66	38
(b) Sixty Miles - supplemental to (a)			(b) Sixty Miles - supplemental to (a)		
ORANGE			BATHURST		
Orange	462	288	Bathurst	529	342
Cowra	70	38	Kandos	12	8
	532	326		541	350
DUBBO			PARKES		
Dubbo	186	125	Parkes	147	84
			Grenfell	36	18
	186	125		183	102

Table continued ....

TABLE 10 : continued ......

(b) Sixty Miles - supplemental to (a)	1965	1967	(b) Sixty Miles - supplemental to (a)	1965	1967
FORBES			PEAK HILL		
Forbes	178	96	Peak Hill	66	38
Cowra	70	38	Forbes	178	96
Peak Hill	5	6			
	253	140		244	134

(1) (a) Seventy mile data would bring Katoomba and Cowra into the Bathurst area, Wellington into the Orange area, and Parkes and Orange within respective areas.

(b) Road and general travel conditions may influence the time taken to cover distances between centres. It is reasonable to add, for example, that travel between Parkes and Dubbo, or Forbes and Orange, should not require more time on the road than, for example, a Katoomba-Bathurst trip.

(c) See appendix G, tables

1.22 This review of the student pool has been restricted to students currently attending schools (including a 1968 sixth form projection) in the area. Beyond this group there are many sources of potential students and a wide variety of variables that will influence persons, positively or negatively, about enrolling at the college. Elaboration on these variables lies beyond the province of the present discussion but there is little doubt that the more liberal, flexible and encouraging the policies formulated by the college council, the wider the sources of potential students that might be tapped. These would include persons referred to in appendix D.

APPENDIX G

A. FUTURE PLANS OF CURRENT FIFTH AND SIXTH FORM STUDENTS

AND

B. ATTITUDE TOWARDS TERTIARY EDUCATION AND INTEREST IN AREAS OF STUDY PROPOSED FOR COLLEGES OF ADVANCED EDUCATION

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A. FUTURE PLANS OF CURRENT FIFTH AND SIXTH FORM STUDENTS

Introduction

1.1 In May, 1967, all secondary schools in the Mitchell, Lachlan and Macquarie regions with students in fifth and sixth forms received questionnaires (1) designed to provide information basic to the current investigation. Separate questionnaires were provided for sixth form students, parents of these students, and fifth form students. A letter of explanation accompanied each questionnaire.

1.2 Letters of transmittal were sent to State and non-State schools seeking co-operation and proposing a date of return for the completed questionnaires. Beyond this, and the specific directions on the questionnaires themselves, administration was determined by the school principals. Under normal conditions a standard procedure would have been sought but proximity to the May vacation, the number of senior students doing examinations and the co-operation experienced in previous contacts with principals, suggested administration would be most effective if left to the discretion of each individual principal. This led to an excellent response, with some questionnaires being completed in school hours and others being completed in the student's own time.

1.3 Assistance by school principals facilitated contacts with parents (2) whose sixth form children were not living at home during the school term.

Response

1.4 Completed questionnaires (3)(4) were received from 84 per cent (597 of 709) sixth form students and 81 per cent (749 of 928) fifth formers.

1.5 Seventy-eight per cent (556 of 709) of parents of sixth form students returned questionnaires but 13 arrived too late for processing. Of the returns, 36 did not have matching student questionnaires, all of these were from parents of boys.

1.6 It was established that fathers completed 266 questionnaires (152 male and 114 female) while mothers completed 149 (74 male, 75 female). It was not possible to determine who completed the remainder.

---

(1) See pp.

(2) The time factor precluded contacting the few parents with overseas addresses.

(3) The distribution of responses, by schools, is reported in table

(4) Slightly less than 7 per cent of the responses were from students who did not live in the area.

1.7 Respondents were invited to comment on, or raise questions about, both the questionnaire and colleges of advanced education. These questions and statements are summarized in appendix

1.8 It was not possible to establish whether the respondents were representative of the three study populations for whom data is reported, but it seems reasonable to assume that percentages shown would approximate those that would be derived from a 100 per cent response.

1.9 The data reported here, then, has been principally derived from an analysis of questionnaires completed by fifth and sixth form students attending schools in the Mitchell, Lachlan and Macquarie regions of New South Wales and by parents of the sixth form students.

Post-Higher School Certificate Plans - Fifth and Sixth Form Students, 1968, and Related Parent Responses

1.10 Acting upon the assumption that they would complete the Higher School Certificate course in a manner satisfactory to themselves, senior students indicated their intended activities for 1968 (sixth form) and for 1969 (fifth form) - tables 1 and 2.

1.11 There is a marked similarity between the respective percentages, the largest difference being 4 per cent and this would have been less if some fifth form pupils from one school had completed their own, rather than a sixth form, questionnaire. (1)

TABLE 1 : Plans for 1968 - Sixth Form Students.

Plan	Male		Female		Total	
	No.	%	No.	%	No.	%
Undertake further education full-time	219	68	230	84	249	75
Work part-time, attend courses part-time	52	16	15	6	67	11
Work full-time	33	10	14	5	47	8
Other	13	4	6	2	19	3
Work full-time, attend courses part-time	4	1	3	1	7	1
Return to school	2	1	2	1	4	1
No response	1	-	3	1	4	1
TOTALS	324	100	273	100	597	100

(1) Where possible, data was transferred to fifth form questionnaire forms.

TABLE 2 : Plans for 1969 - Fifth Form Students.

Plan	Male		Female		Total	
	No.	%	No.	%	No.	%
Undertake further education full-time	236	64	322	85	558	74
Work part-time, attend courses part-time	76	20	22	6	98	13
Work full-time	36	10	26	7	62	8
Work full-time, attend courses part-time	4	1	4	1	8	1
Return to school	11*	3	1		12	2
Other	5	1			5	1
No response	3	1	3	1	6	1
TOTALS	371	100	378	100	749	100

* Mainly due to students completing Sixth Form questionnaires, which asked for plans for 1968.

1.12 Parents stated their preferences from the same list of choices again on the assumption of satisfactory completion of secondary schooling. The desire for full-time further education is consistently high.

TABLE 3 : Parent Preferences for 1968 Activities of Sixth Form Students.

Plan	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Undertake further education full-time	208	70	214	87	422	78
Work part-time, attend courses part-time	58	20	20	8	78	14
Work full-time	22	7	8	3	30	6
Work full-time, attend courses part-time	3	1	3	1	6	1
Return to school	2	1	1	.5	3	.5
Other	2	1	1	.5	3	.5
No response	1				1	
TOTALS	296	100	247	100	543	100

1.13 Having indicated preferences for their children's activities in 1968, parents elaborated on the type of advanced education deemed most desirable (table 4). It would appear parents feel that the attainment of a tertiary qualification is central, not only to continuing studies beyond the Higher School Certificate, but perhaps is the basic reason for returning to school after gaining the School Certificate.

TABLE 4 : Parent Preferences for Type of Study in 1968.

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Prefer university, but main aim is a tertiary qualification	132	45	93	38	225	42
No specific institutional preference, but the main aim is a tertiary qualification	77	26	81	33	158	29
University only	34	11	12	5	46	8
General tertiary studies in a recognized institution not primarily directed toward a specific vocation	13	4	15	6	28	5
Non-tertiary studies, e.g. non-diploma technical or business college courses	21	7	6	2	27	5
Other	2	1	27*	11	29	5
No response/Not applicable	17	6	13	5	30	6
TOTALS	296	100	247	100	543	100

* This includes 9 in nursing courses and 13 at a teachers college.

Type of Institution and Course Preferred

1.14 Students who stated their intention to undertake further studies indicated the type of institution they desired to attend, named the institution and named their first choice of course at that institution.

1.15 Seventy three per cent of sixth form students and 68 per cent of fifth formers chose university or teachers college for further studies. The next highest percentages, 15 and 12 respectively, represented students who did not respond to this item, principally because they were not interested in further education, desired to work full-time, or had not yet reached a decision about further studies.

TABLE 5 : Type of Institution Preferred for 1968 Studies - Sixth Form Students (1967).

Type of Institution	Male		Female		Total	
	No.	%	No.	%	No.	%
University	156	48	97	36	253	42
Teachers College	54	17	132	48	186	31
Technical College	21	6	9	3	30	5
Other Institution	7	2	8	3	15	2
Agricultural College	12	4	-	-	12	2
Institute of Technology	8	3	-	-	8	1
Institute of Business Studies	3	1	-	-	3	1
Business College	1	-	2	1	3	1
Evening College	-	-	-	-	-	-
No response	62	19	25	9	87	15
TOTALS	324	100	273	100	597	100

TABLE 6 : Type of Institution Preferred for 1969 Studies - Fifth Form Students (1967)

Type of Institution	Male		Female		Total	
	No.	%	No.	%	No.	%
University	173	47	111	29	284	38
Teachers College	43	12	184	49	227	30
Technical College	43	12	21	6	64	9
Agricultural College	27	7	1	-	28	4
Institute of Technology	3	1	2	1	5	1
Institute of Business Studies	2	-	-	-	2	-
Business College	2	-	3	1	5	1
Evening College	1	-	-	-	1	-
Other Institution	21	6	20	5	41	5
Not stated	56	15	36	9	92	12
TOTALS	371	100	378	100	749	100

1.16 . Courses desired at the different types of institution are listed in table 7. To facilitate comparison of the demand for specific courses both sixth and fifth form data has been included. It is well to remember, at this point, that the sixth form figures represent a study population only four-fifths that of the fifth form.

1.17 Interpretation by the research staff was necessary when a course desired was not available at the specified institution. Knowledge of courses available and/or planned for these institutions, together with a review of the respondent's second choice of course, preferred occupation and courses of study selected from those suggested for colleges of advanced education assisted in this interpretation.

TABLE 7 : Summary of Courses desired at Institution preferred for 1968 or 1969 Post-Secondary School Studies, by Type of Institution, Sex, Number and Form.

	Male		Female		Totals	
	6th	5th	6th	5th	6th	5th
1. University						
Arts	32	25	62	58	94	83
Science	29	28	12	10	41	38
Engineering	23	26	-	1	23	27
Economics	12	10	6	4	18	14
Rural Science	11	5	-	-	11	5
Agricultural Science	5	8	1	1	6	9
Medicine	6	5	-	-	6	5
Veterinary Science	6	9	-	2	6	11
Pharmacy	3	6	2	4	5	10
Surveying	4	2	-	1	4	3
Architecture, Town Planning	3	6	1	2	4	8
Forestry	3	2	-	-	3	2
Law	3	11	-	2	3	13
Political Science	2	1	1	-	3	1
Social Sciences	1	1	2	2	3	3
Biology - Marine, etc.	3	-	-	1	3	1
Unknown	2	1	1	-	3	1
Nursing Course	-	-	2	2	2	2
Physiotherapy	-	-	2	8	2	8
Metallurgy	2	-	-	-	2	-
Industrial Chemistry, Applied Chemistry	1	6	-	-	1	6
Dentistry	1	1	-	1	1	2
Textile Technology	1	2	-	-	1	2
Computer Studies	1	1	-	2	1	3
Asian Languages	1	-	-	-	1	-
Oriental Studies	1	-	-	-	1	-
Food Technology	-	1	1	1	1	2
Speech Therapy	-	-	1	2	1	2
Social Welfare	-	-	1	1	1	1
Pathology	-	-	1	-	1	-
Librarianship	-	1	1	1	1	2
Commerce	-	5	-	2	-	7
Optometry	-	2	-	-	-	2
Agricultural Economics	-	1	-	1	-	2
Biology Certificate	-	1	-	-	-	1

Table continued......

TABLE 7 : continued.....

	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Draughtsman	-	1	-	-	-	1
Applied Geology	-	1	-	-	-	1
Hospital Administration	-	1	-	-	-	1
Industrial Arts	-	1	-	-	-	1
Archaelogy	-	1	-	-	-	1
Occupational Therapy	-	-	-	1	-	1
Medical Technology	-	-	-	1	-	1
Totals	156	172	97	111	253	283
2. Teachers College						
Primary Teaching	31	16	70	80	101	96
Physical Education	4	7	3	9	7	16
Territories Education Officer	1	-	-	-	1	-
Junior Secondary	13	14	11	23	24	37
Manual Arts, Art, etc.	2	2	3	7	5	9
Needlework, Home Science, Home Economics	-	-	15	7	15	7
Infants, Day Nursery, Kindergarten	-	-	25	52	25	52
Junior Secondary; Commerce	-	-	2	1	2	1
Music	-	-	-	1	-	1
No response	3	4	3	4	6	8
Totals	54	43	132	184	186	227
3. Technical College						
Sheep and Wool, Agriculture, Farm Mechanics, etc.	6	9	-	-	6	9
Engineering Trades	2	4	-	-	2	4
Electrical Trades (and engineering)	1	6	-	-	1	6
Art	2	1	1	5	3	6
Diagnostic Radiography	-	2	-	3	-	5
Surveying/Draughtsman	4	3	-	-	4	3
Television/Radio Technician	1	1	-	-	1	1
Typing, Secretarial, Shorthand	-	-	4	6	4	6
Accountancy, Law, Commerce	1	2	1	-	2	2
Architecture/Draughtsman	-	2	-	1	-	3
Personnel, Administration	1	-	-	-	1	-
Biology Certificate	1	-	1	-	2	-
Carpentry	1	-	-	-	1	-
Metallurgy	-	1	1	-	1	1
Commercial	-	-	1	1	1	1
Electronics and Communications	-	2	-	-	-	2
Fitting, Machining, Oxy-welding	-	2	-	-	-	2

Table continued ......

TABLE 7 : continued .....

	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Mechanics - Auto, Aircraft	-	2	-	-	-	2
Local Government Clerk	-	1	-	-	-	1
Creative Arts	-	1	-	-	-	1
Tracer	-	-	-	1	-	1
Interior Decorating	-	-	-	2	-	2
Textile Design	-	-	-	1	-	1
Meat Inspector	-	1	-	-	-	1
Hotel and Club Management	-	1	-	-	-	1
Machine Operator, Accounting, etc.	-	-	-	1	-	1
Not Stated	1	2	-	-	1	2
Totals	21	43	9	21	30	64
4. Other Institution						
Military, RAAF, Naval Officer Training	2	10	-	-	2	10
Engineering (R. M. C.)	1	1	-	-	1	1
Pilot's Licence	1	1	-	-	1	1
Music	-	-	1	5	1	5
Nursing, Mothercraft, etc.	-	-	2	4	2	4
Territories Education Officer	-	1	-	1	-	2
Beauty College	-	-	-	2	-	2
Speech Therapy	-	1	1	1	1	2
Air Traffic Controller, Civil Aviation	1	-	-	-	1	-
Radio and T. V. Announcing	1	-	-	-	1	-
Stock Exchange Certificate	1	-	-	1	1	-
Physiotherpay	-	-	1	-	1	-
Singing	-	-	1	-	1	-
Radiography	-	1	1	-	1	1
St. John's Ambulance Course	-	-	1	-	1	-
Accountancy/Insurance	-	1	-	-	-	1
National Institute of Dramatic Art	-	1	-	-	-	1
National Art School	-	1	-	-	-	1
P. M. G. Engineering	-	1	-	-	-	1
Australian Planning - Town Planning Institute	-	1	-	-	-	1
Clergy	-	1	-	-	-	1
Physical Education Teacherl	-	-	-	2	-	2
Myer's Training School	-	-	-	1	-	1
Institution of Needlework	-	-	-	1	-	1
Interior Decorating	-	-	-	1	-	1
Law Institute	-	-	-	1	-	1
Teaching (Avondale)	-	-	-	1	-	1
Totals	7	21	8	20	15	41

Table continued.....

TABLE 7 : continued .....

	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
5. **Agricultural College**						
General Agriculture	7	16	-	1	7	17
Animal Husbandry	-	3	-	-	-	3
Farm Management	2	1	-	-	2	1
Food Technology	1	1	-	-	1	1
Soil Conservation	-	1	-	-	-	1
Orchard Management	1	-	-	-	1	-
Wool Technology	-	1	-	-	-	1
Farm Certificate	-	1	-	-	-	1
Not Stated	1	3	-	-	1	3
Totals	12	27	-	1	12	28
6. **Institute of Technology**						
General Engineering	5	1	-	-	5	1
Communications Engineer	1	1	-	-	1	1
Automotive Engineer	1	-	-	-	1	-
Civil Engineer	-	1	-	-	-	1
Wool Technology	1	-	-	-	1	-
Medical Technology	-	-	-	2	-	2
Totals	8	3	-	2	8	5
7. **Institute of Business Studies**						
Management (Buying and Retail)	1	1	-	-	1	1
Accountancy	1	1	-	-	1	1
Insurance	1	-	-	-	1	-
Totals	3	2	-	-	3	2
8. **Business College**						
Typing, Shorthand, Secretarial	-	-	2	4	2	4
Insurance	1	-	-	-	1	-
Accountancy	-	1	-	-	-	1
Management	-	1	-	-	-	1
Totals	1	2	2	4	3	6
9. **Evening College**	-	1	-	-	-	1
Total	-	1	-	-	-	1

Part-time Studies

1.18 Not all students who undertake tertiary education do so on a full-time basis. Most of the study population seek full-time education but some plan part-time studies (tables 1 and 2) probably associated with a specific type of employment. This type of part-time study, vocationally oriented, forms a greater part of the overall educational programme of colleges of advanced education than it does of that of universities.

1.19 Although opportunity for a study/employment association might be limited in a country area, the college should make provision for part-time students. Prospective students unable to attend on a full-time basis should have the opportunity to further their education.

1.20 There are various ways of arranging part-time courses. Students interested in part-time work/study indicated as a first preference the following pattern of work and study.

TABLE 8 : Preference for Organization of Part-time Studies - Sixth Form.

Organization	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Work half day; college half day	36	33	23	17	59	50
Work during day; college in evening	32	52	13	13	45	65
Work half the year; college the other half	8	7	3	16	11	23
Work 8 months; college 4 months	2	13	1	1	3	14
Other	3	5	-	16*	3	21
Totals	81	110	40	63	121	173

* 15 for nurse or teacher education.

TABLE 9 : Choice of Areas of Studies in Colleges of Advanced Education by Students interested in Part-time studies. (1)

Area of Study	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Teacher Education	9	13	18	21	27	34
Engineering and Applied Sciences	25	33	-	1	25	34
Administration and Commercial Studies	14	15	5	4	19	19

Table continued .....

(1) Data on student choices of areas of studies in colleges of advanced education is reported in section B of this appendix, pp.

TABLE 9 : continued .....

Area of Study	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
General Studies	8	7	9	9	17	16
Rural Studies	10	15	1	-	11	15
Architecture and Building	6	11	-	-	6	11
Paramedical Studies	1	-	5	8	6	8
Art and Music	-	-	-	8	-	8
Social Work	-	-	2	5	2	5
Communications	-	4	-	2	-	6
Home Science and Nutrition	-	-	-	2	-	2
Librarianship	-	-	-	1	-	1
No response	8	12	-	2	8	14
Totals	81	110	40	63	121	173

1.21 A more detailed analysis of part-time study appeared desirable with respect to students who live in the investigation area. In table 8 is presented the preference of these students for organization of part-time studies. This is followed by sections, (A), (B) and (C).

1.22 In (A) the distribution of stated interests in areas of study of colleges of advanced education is shown for each different work/study organization preferred. This is further defined, (B), in terms of the specific type of course desired. The final section shows the choice of occupation by the whole group (number = 106)

TABLE 10 : Preference for Organization of Part-time Studies - Sixth Form Students, Area only.

Organization	Male	Female	Total
Work half day; attend college half day	31	22	53 (a)
Work during day, attend college at night	30	12	42 (b)
Work half year, attend college half year	8	3	11 (c)
Totals	69	37	106

Section (A) - Interest in Areas of Study in Colleges of Advanced Education.

Area of Study	Organization (from table 10)					
	(a)		(b)		(c)	
	Male	Female	Male	Female	Male	Female
General Studies	1	4	3	4	2	-
Engineering and Applied Science	8	-	9	-	4	1
Administration and Commercial Studies	7	3	4	2	2	-
Teacher Education	6	13	2	5	-	-
Rural Studies	3	-	5	-	-	-
Paramedical Studies	-	2	1	1	-	1
Architecture and Building	3	-	3	-	-	-
Electronic Data Processing	1	-	-	-	-	-
Social Work	-	-	-	-	-	1
No response	2	-	3	-	-	-
Totals	31	22	30	12	8	3

Section (B) - Choice of Course from Selected List of Courses suggested for Colleges of Advanced Education

(i) Group : Work half day; attend college half day.

Males : Junior Secondary teaching (4); Mechanical Engineer (3); Local Government (3); Administration - Government Departments (2); Survey Draughting (2); Agriculture (2). One : Natural Sciences; Electrical Engineer; General Engineer; Applied Geology; Administration - Business/Industry; Primary Teaching; Physical Education Teaching; Farm Management; Computer Programming; Civil Engineer; Management; Metallurgy; Architectural Draughting.

Females : Secondary Teaching (4); Primary Teaching (2); Kindergarten Teaching (2); Secretarial Studies (2); Natural Sciences (2). One : Humanities; Social Sciences; Accountancy; Nursery Teaching; Infants Teaching; Home Science Teaching; Needlework Teaching; Art Teaching; Occupational Therapy; Pathology.

(ii) Group : Work during day, attend college at night.

Males : Mechanical Engineer (3); Agriculture (3); Survey Draughting (3); Natural Sciences (2); Electrical Engineer (2); Wool Technology (2); Economics (2); Accountancy (2); Animal Husbandry (2). One : Humanities; Applied Geology; Laboratory Technology; Primary Teaching; Physical Education Teaching; Medical Technology.

Females : Humanities (3); Primary Teaching (3); Junior Secondary Teaching (2); Natural Sciences (1); Administration - Government Departments (1); Secretarial Studies (1); Radiography (1).

(iii) Group : Work half year, attend college half year.

Males : Mechanical Engineer (2); Social Sciences (2); Electrical Engineer (1); Economics (1); Administration - Government Departments (1); Wool Technology (1).

Females : General Nursing (1); Child Welfare Officer (1); Social Worker (1).

Section (C) - Choice of Occupation : All Groups

Males : Engineering (9); Draughtsman (8); Other Institution based teacher (6); University based teacher (5); Clerk/Accountant (5); Farming/Stationhand (4); Wool Classing/Animal Husbandry, etc. (4); Grazier (3); Armed Forces (2); Biology (2); Art/Commercial Art (2); One : Social Work; Civil Aviation; Personnel/Administration; Metallurgist; Health Inspector; Public Service; Industrial Chemist; Science/Research; Wool Technology; Agricultural Science. (Unknown - 5).

Females : Teaching - other institution (12); Teaching - university based (7); Secretary (3); Nursing (2). One : Clerk/ Accountant; Vocational Guidance; Science; Occupational Therapy; Social Work; University Studies; Armed Forces; Laboratory Assistant; Biology. (Unknown - 4).

Non-Study in 1968 (Sixth Form)

1.23 Students not planning to continue formal studies in 1968, did not complete sections of the questionnaire pertaining to preferred institution for further education, attendance at a city or country college and work/study organization. They did, however, state their reasons for not proposing to enrol in formal courses in 1968.

Reason	Male	Female
Lack of finance	12	2
Not interested in further study	22	4
Have other plans (specifically)	22	15

1.24 A variety of plans were reported under the last category. Of these, nursing for females and military forces for males involved more than one respondent.

1.25 Economic factors may influence the ability of students to implement their plans for 1968. Parents were asked to estimate (table 11) the amount of financial assistance needed by their children. A high percentage indicate both fees and living allowance will be needed.

TABLE 11 : Parent estimate of Financial Assistance needed for children to undertake plans for Education in 1968.

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
No outside assistance needed	25	8	18	7	43	8
Fees and living allowance needed	215	73	184	75	399	73
Fees only needed	34	11	29	12	63	12
No plans for further study	17	6	10	4	27	5
No response/Not applicable	5	2	6	2	11	2
Totals	296	100	247	100	543	100

Work Plans, 1968 (Area residents only)

1.26 Students who live in the region and who indicated they planned to work in 1968 were asked if they could live at home and follow this line of work. They responded in the following manner :

Males : Yes = 21 No = 33

Females : Yes = 10 No = 16

1.27 Those not able to live at home and follow their preferred occupation indicated the nearest location at which this might be obtained :

Location	Male	Female
Sydney Metropolitan	21	14
Adjacent town (daily travel)	2	1
More distant town (non-daily travel)	6	-
Other	4	1
Totals	33	16

1.28 The first choices of occupation of both groups of students were :

(i) Group who could stay at home and work.

Males : (N = 21) : Clerk/Accountant (5); Grazier/Farmer (2); Teaching - other institution (2); Agriculture, etc. (1); Civil Aviation/Pilot (2); Farming/Stationhand/Orchardist (2), Clergy (1); Radio/T. V. Announcer (1); Draughtsman/Architect (1); Surveyor (1); Fitter/Machinist (1); Engineering (1); Unspecified (1).

Females : (N = 10) : Nursing (2); Air Hostess (1); Draughtsman (1); Laboratory Assistant (1); Secretarial Work (1); Teaching - other institution (1); University Studies (1); Public Service (1); Unspecified (1).

(ii) Group not able to live at home and travel to work daily.

Males : (N = 33) : Armed Forces/Police/Navy (5); Civil Aviation/Pilot (5); Public Service (4); Engineering (2); Wool-classing/ Agriculture (2); Clergy (1); Commercial Art/Art (1); Radio/T. V. Announcing (1); Draughtsman/Architect (1); Grazier/Farmer (1); Wool Technology (1); Teaching - University based (1); Retail Work (1); Undecided (1); Wildlife Officer (1); Unspecified (5).

Females : (N = 16) : Nursing (9); Armed Forces/Police (2); Retail Work (1); Teaching - other institution (1); Personnel Work (1); Hairdressing/Beautician (1); Unspecified (1).

Preferred Occupations

1.29 A common complaint by students when commenting on the questionnaire (see appendix H) was that they were confronted with questions for which they themselves were still seeking answers. In particular this applied to stating a first and second choice of occupation. Naturally enough, the complaint was made by more fifth than sixth form students. Even without the written statements, it is evident that the fifth form students experienced more difficulty on this item as proportionately twice as many failed to list an occupation.

1.30 Students in both forms have made quite similar choices. After teaching, engineering/science for boys and paramedical/social work for girls are prominent. Occupations on the land are also highly featured although fifth form boys appear noticeably more interested. Perhaps some of the senior school attrition, with boys leaving to go on the land, may be a factor in this difference.

1.31 It is readily apparent that, for whatever reasons, the vocation of teaching is highly regarded by senior secondary school students in the area (tables 12 and 13). Only first choices of occupation have been reported but perusal of second choices shows, first, that many students not choosing teaching as a first choice list it as a second choice and, secondly, that a high proportion of students who initially selected teaching in one facet of education repeated the occupation citing a different facet for the second choice.

1.32 Teacher education, then, may be regarded as the major stated need of students in the area. If the proposed college is to meet these educational needs, a working relationship with teacher education is essential.

1.33 Several of the occupations,and courses related to them, listed by students appear unrealistic, particularly, if planning to work toward the stated vocational goal in 1968. For some students, subjects and/or levels at which they are taken in sixth form, do not comply with stated matriculation requirements of institutions which provide the tertiary education leading to the vocational goal.

TABLE 12 : **Distribution of Preferred Occupations for Sixth Form Respondents by Sex and Number.**

Occupation	Male	Occupation	Female
Teaching (other institution)	35	Teaching (other institution)	104
Teaching (university based)	38	Teaching (university based)	63
Engineering (all types)	33	Nursing, B.A. Nursing Dental	16
Science/Research	13	Social Work, Almoner, Marriage Counsellor	6
Civil Aviation, Pilot, etc.	13	Psychology, Vocational Guidance	6
Clerk/Accountant	12	Secretarial	5
Armed Forces, Police, Navy	12	General Science/Research	4
Law	10	Undecided	4
Grazier	9	Biologist	3
Wool-classing; Animal Husbandry; Stock-Station Agent	9	Occupational Therapy	3
Draughtsman	8	Physiotherapy	3
Medicine	7	Military/Police	3
Public Service	7	Journalist	3
Drama, T.V. Announcer, Writing, Music	6	Commerce/Economics	3
Forestry	5	Singer - Radio/T.V. Announcer	2
Agricultural Adviser/Agronomist	5	Librarian	2
Geologist	5	Pharmacy	2
Nursing; Psychiatric, etc.	5	Diplomatic Service	2
Farm/Stationhand	5	Speech Therapy	2
Architect	4	Languages	1
Veterinary Science/Surgeon	4	Food Technology	1
Clergy, Religious Order	3	Interpreter	1
Commercial Art/Art	3	Medical Librarian	1
Livestock Officer	3	Public Service	1
Diplomatic Service	3	Advertising	1
Metallurgist	3	Psychiatrist	1
Agricultural Research	3	Animal Husbandry	1
Biologist	3	Retail Work	1
Surveying	3	University Study	1
Economics/Commerce	2	Personnel Work	1
Dentistry	2	Pathologist	1
Personnel Work	2	Law	1
Wild Life Officer	2	Laboratory Assistant	1
Industrial Chemist	2	Hairdressing/Beautician	1

Table continued.....

TABLE 12 : continued .....

Occupation	Male	Occupation	Female
Undecided	2	Religious Order	1
Electronics/Communication	2	Clerk	1
Social Work	1	Air Hostess	1
Journalist	1	Architecture	1
Librarian	1	Draughtswoman	1
Demolition	1	Not stated	17
Wool Technology	1		
Fitter/Machinist	1		
Food Technology	1		
Interpreter	1		
Business Executive	1		
Agricultural Science	1		
Meteorologist	1		
Health Inspector	1		
Banking/Insurance	1		
Astronomical Research	1		
Computer Studies	1		
Motivation Research	1		
Retail Work	1		
Not stated	24		
Total	324	Total	273

TABLE 13 : Distribution of Preferred Occupations for Fifth Form Respondents by Sex and Number.

Occupation	Male	Occupation	Female
Teaching (other institution)	29	Teaching (other institution)	134
Teaching (university based)	29	Teaching (university based)	60
Engineering (all types)	39	Nursing, B.A. Nursing, Dental	16
Armed Forces, Police, etc.	16	Social Work, Almoner, Marriage Counsellor	14
Science, Science Research	15	Secretary	10
Clerk/Accountant	14	Physiotherapy	7
Wool-classing, Animal Husbandry, Stock/Station Agent	14	General Science, Science Research	5
Law	11	Radio/T.V. Announcer, Singer	5
Grazier	11	Armed Forces, Police, etc.	5
Draughtsman	11	Pharmacy	5
Architect	10		
Agricultural Advisor, Agronomy	9		

Table continued .....

TABLE 13 : continued .....

Occupation	Male	Occupation	Female
Veterinary Science/ Surgeon	8	Law	4
Pharmacy	7	Hairdresser/Beautician	4
Public Service	7	Psychology; Vocational Guidance	3
Civil Aviation, Pilot, etc.	7	Journalist	3
Mechanic	6	Air Hostess	3
Surveying	6	Clerk/Accountant	3
Medicine	5	Librarian	3
Undecided	5	Radiography	3
Livestock Officer	4	Interior Decorator/ Designer	3
Drama, T.V. Announcer/ Producer	4	Dressmaking and Crafts Teacher	3
Electronics/Communication	4	Medical Technology	2
Geologist	3	Commercial Art	2
Commerce/Economics	3	Occupational Therapy	2
Metallurgist	3	Architect	2
Commercial Art	2	Speech Therapy	2
Farm Stationhand	2	Receptionist	2
Wool Technology	2	Commerce/Economics	1
Computer Studies	2	Religious Orders	1
Fitter/Machinist	2	Cooking Demonstrator	1
Industrial Chemist	2	Unskilled labour	1
Forestry	2	Banking	1
Diplomatic Service	2	Public Service	1
Psychiatric nurse	1	Veterinary Science	1
Religious Order	1	Geologist	1
Social Work	1	Agricultural Research	1
Apprentice	1	Historian	1
Personnel/Administration	1	Dietitian	1
Banking	1	Language Study	1
Speech Therapy	1	Industrial Chemist	1
Business Executive	1	Machine Operator	1
Hotel/Club Manager	1	Undecided	1
Professional Car Racer	1	Medicine	1
Archaeology	1	Medical Librarian	1
Agricultural Science	1	Personnel	1
Food Technology	1	Wholesale/Retail	1
Language Study	1	Not stated	54
Hospital Administration	1		
Bacteriologist	1		
Town Planning	1		
Agricultural Researcher	1		
Biologist	1		
Not stated	56		
Total	371	Total	378

Attendance at a City or Country Institution

1.34 From the name of the institution its location as either metropolitan or country was recorded. While no differentiation was made between forced choices when the course was only available in one of the locations, and free choice when the course was available at institutions located in both metropolitan and country areas, such as teachers colleges, some insight may be gained into where the students would like to continue their studies. Tables 14 and 15 show the locations as derived from questionnaires.

1.35 These tables are immediately followed by further tables (16 and 17) showing student preference for attendance at a college located in the Mitchell, Lachlan, Macquarie region or located in the city provided that the respondent's first choice of course was available in both places.

TABLE 14 : Location of Institution chosen by Sixth Form Students for 1968 Studies.

Location	Male		Female		Total	
	No.	%	No.	%	No.	%
Metropolitan	146	45	124	45	270	45
Country	94	29	115	42	209	35
No response/Not applicable	84	26	34	13	118	20
Totals	324	100	273	100	597	100

TABLE 15 : Location of Institution Chosen by Fifth Form Students for 1969 Studies.

Location	Male		Female		Total	
	No.	%	No.	%	No.	%
Metropolitan	146	39	131	35	277	37
Country	128	35	188	50	316	42
No response/Not applicable	97	26	59	15	156	21
Totals	371	100	378	100	749	100

TABLE 16 : Preference for City or Country (Mitchell-Lachlan-Macquarie) Attendance if Institutions offered First Choice of Course - Fifth Form Students.

Location	Male		Female		Total	
	No.	%	No.	%	No.	%
Country college (M-L-M)	190	51	223	59	413	55
City college	75	21	60	16	135	18
No particular preference	59	16	59	16	118	16
No response/Not applicable	47	13	36	9	83	11
Totals	371	100	378	100	749	100

TABLE 17 : Preference for City or Country (Mitchell-Lachlan-Macquarie) Attendance if Institutions offered First Choice of Course - Sixth Form Students.

Location	Male		Female		Total	
	No.	%	No.	%	No.	%
Country college (M-L-M)	161	50	149	54	310	52
City college	52	16	49	18	101	17
No particular preference	56	17	54	20	110	18
No response/Not applicable	55	17	21	8	76	13
Totals	324	100	273	100	597	100

1.36 Parents of sixth form students responded to a similar question specifically : If the same course were available in a college in the Mitchell-Lachlan-Macquarie regions and in the city, which would you prefer your son/daughter to attend?

Table 18 : Parent Preference for City or Country College Attendance by Sixth Form Children.

Location	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Country College	208	70	184	74	392	72
City College	26	9	25	10	51	9
No particular preference	35	12	17	7	52	10
Not interested in advanced education	4	1	4	2	8	2
No response	23	8	17	7	40	7
Totals	296	100	247	100	543	100

1.37 In cases where both parents and students completed questionnaires a high positive relationship was noted for selection of the country college.

1.38 Where students selected the city college, parents of both sons and daughters were evenly divided between city and country enrolment.

1.39 Approximately one half of the parents whose children indicated no particular preference preferred that they attend the country college.

1.40 Twenty-six of the 36 parents for whom there was no corresponding student questionnaire chose the country college.

1.41 Male students (35) whose home address was outside the investigation area preferred city study on a 2 to 1 ratio, while of females stating preferences (6), four selected the college in the country.

1.42 At several centres persons presenting submissions to the Committee commented on the desirability of courses or units of study at the proposed college being accepted by universities. In order to ascertain whether this feeling was representative of parents of potential university students, the former were asked whether they would prefer first year attendance at university or at the regional college offering basic courses which permitted entrance with advanced standing to a university. The preferences are shown in table 19.

TABLE 19 : **Parent Preference for First Year University Studies at University or Regional College.**

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
First year attendance at the university	94	32	55	22	149	27
First year attendance at the regional college	133	45	116	47	249	46
No response/Not applicable	69	23	76	31	145	27
Totals	296	100	247	100	543	100

This data needs to be interpreted with reference to the following information. From the student questionnaires, it was noted that interest in tertiary education fell into several categories, including 39 males and 4 females considering university education essential; and 131 males and 93 females, while preferring university, at the same time indicating that their main aim was to obtain a tertiary qualification. The data for parents of these children, with reference to location of institution at which they might commence university studies is as follows :

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
First year attendance at the university	80	55	42	46	122	52
First year attendance at the regional college	54	37	46	50	100	42
No response	11	8	4	4	15	6
Totals	145	100	92	100	237	100
No parent questionnaire	25		5		30	

B. ATTITUDE TOWARDS TERTIARY EDUCATION AND INTEREST IN AREAS OF STUDY PROPOSED FOR COLLEGES OF ADVANCED EDUCATION

Attitude towards Tertiary Education

2.1 In their responses (table 4), over 80 per cent of parents indicated they would like their children to undertake advanced studies and obtain a tertiary qualification. The percentage of students seeking this type of qualification is approximately the same, depending upon the interpretation of the third category - general interest in tertiary education (see tables 20 and 21).

TABLE 20 : Attitude of Sixth Form Students (1967) towards Tertiary Education.

	Male		Female		Total	
	No.	%	No.	%	No.	%
Prefer university, but main aim is to gain a recognized tertiary qualification	131	40	93	34	224	38
Desire a qualification from a tertiary institution	74	23	114	42	188	31
General interest in tertiary education	55	17	54	20	109	18
Interested ONLY in university education	39	12	4	1	43	7
Not interested in tertiary education	17	5	5	2	22	4
No response	8	3	3	1	11	2
Totals	324	100	273	100	597	100

TABLE 21 : Attitude of Fifth Form Students (1967) towards Tertiary Education.

	Male		Female		Total	
	No.	%	No.	%	No.	%
Desire a qualification from a tertiary institution	108	29	152	40	260	35
Prefer university, but main aim is to gain a recognized tertiary qualification	129	35	99	26	228	30
General interest in tertiary education	55	15	86	23	141	19
Interested ONLY in university education	45	12	17	4	62	8
Not interested in tertiary education	25	7	10	3	35	5
No response	9	2	14	4	23	3
Totals	371	100	378	100	749	100

University ONLY Aspirants

2.2 When revealing their attitude towards tertiary education a number of students (43) indicated they were interested ONLY in university education. Choices of occupation for these students are as follows :

Males (39)

Engineering	6
Medicine	6
General science, science research	3
Architecture	1
Commerce/Economics	1
Journalism	1
Motivation Research	1
Public Service	1
Diplomatic Service	1
Agriculture - Adviser/ Agronomy	1
Law	6
Geologist	3
Unknown	2
Clergy	1
Dentistry	1
Armed Forces	1
Computer Studies	1
Veterinary Surgeon/ Science	1
Biology	1

Females (4)

Teaching (university based)	3
Speech Therapy	1

2.3 Aspirations of students are often discussed in terms of occupations of parents. The list of occupations of parents whose children specified university studies ONLY follows :

Father	Mother
High School Teacher	Domestic Duties
Primary Teacher	Domestic Duties
Deputy Principal	Domestic Duties
Caltex, Malaysia	Dentist (Thailand)
Textile Designer	Domestic Duties
Bank Accountant	Hospital Sister
Grazier (2)	Domestic Duties (2)
Farmer (3)	Domestic Duties (3)
Enamel Supervisor	Domestic Duties
Plant attendant	Machinist
Toolmaker	Shop Assistant
Machine Operator - Mines	Domestic Duties
Farmer/Grazier	Not stated
Air Charter Proprietor	Domestic Duties
Not stated	Infants' Headmistress
Building contractor	Postmistress
Carpenter	Secretary
Furniture Shop Proprietor	Domestic Duties
Hospital Cook	Process worker
Assistant Station Master	Domestic Duties
Public Service (2)	Domestic Duties (2)
Minister of Religion	Domestic Duties
Company Director	Domestic Duties
Maintenance Engineer	Domestic Duties
Works Manager	Domestic Duties
Electrical Engineer	Domestic Duties
Electrical Contractor	Shop Assistant
Attendant, State Parliament	Teacher
Farmer	Not stated
Retail Trade	Shop Assistant
Deceased	Jewellery Shop Proprietor
Pensioner	Domestic Duties
Labourer	Domestic Duties
Garage Proprietor	Domestic Duties
Storekeeper (own)	Mother
Merchant	Merchant
Carpenter	School Principal
Shearer	Domestic Duties
Deceased	Primary Teacher

2.4 Thirty-five of these families returned questionnaires on the item related to first year attendance at a university or at a regional college offering basic courses permitting entrance with advanced standing to university. Twenty-six chose university attendance and nine first year at the regional college.

Not Interested in Tertiary Education

2.5 Lack of interest in tertiary education was recorded by 22 students (17 males and 5 females). Parents of half of this group stated they would encourage them to undertake tertiary studies if a college were established within reasonable daily travel of home. Of the remaining parents, 8 had not returned the questionnaire and 3 would not encourage their sons to commence advanced studies.

2.6 Students reporting a lack of interest in tertiary education, or interested ONLY in university education did not respond to questionnaire items related to areas of study suggested as segments of educational programmes in colleges of advanced education.

Interest in Areas of Study Proposed for Colleges of Advanced Education

2.7 Thirteen areas of study were listed (pp. 280-2) and students were asked to write "1" beside the area of study that most interested them. It was suggested that if other areas also interested them these should be ranked in order of preference.

2.8 Interest of students is reported in tables 22 and 23. These are first choices only. A third table (24) employs the same data and, in providing percentages for choices by boys and girls, facilitates comparison between fifth and sixth form students.

TABLE 22 : Interest of Sixth Form Respondents in Areas of Study proposed for Colleges of Advanced Education - First Choice.

Area of Study	Male		Female		Total	
	No.	%	No.	%	No.	%
Teacher Education	58	18	162	59	220	37
General Studies	50	15	44	16	94	16
Engineering and Applied Science	54	17	-	-	54	9
Administration and Commercial Studies	32	10	11	4	43	7
Rural Studies	32	10	3	1	35	6
Paramedical Studies	3	1	27	10	30	5
Architecture and Building	15	5	2	1	17	3
Social Work	1	-	5	2	6	1
Communications	4	1	1	-	5	1
Librarianship	1	-	4	2	5	1
Electronic Data Processing	2	1	-	-	2	-
Art and Music	1	-	1	-	2	-
Home Science and Nutrition	-	-	1	-	1	-
Sub-totals	253	78	261	95	514	86
Not interested, university only, no response, etc.	71	22	12	5	83	14
TOTALS	324	100	273	100	597	100

2.9 Teacher Education again proved by far the most popular. Next came General Studies, about which several points should be borne in mind. First, it encompassed a very broad range of subject matter and, secondly, it was the first area of study in the list; the only area on the first page of this section of the questionnaire.

TABLE 23 : Interest of Fith Form Respondents in Areas of Study proposed for Colleges of Advanced Education - First Choice.

Area of Study	Male		Female		Total	
	No.	%	No.	%	No.	%
Teacher Education	60	16	222	59	282	38
General Studies	46	13	39	10	85	11
Engineering and Applied Science	62	17	2	1	64	9
Administration and Commercial Studies	33	9	12	3	45	6
Rural Studies	45	12	4	1	49	6
Paramedical Studies	3	1	35	9	38	5
Architecture and Building	22	6	3	1	25	3
Social Work	2	1	11	3	13	2
Communications	10	3	3	1	13	2
Librarianship	1	-	5	1	6	1
Electronic Data Processing	1	-	-	-	1	-
Art and Music	3	1	11	3	14	2
Home Science and Nutrition	-	-	3	1	3	-
Sub-totals	288	78	350	93	638	85
Not interested, university only, no response, etc.	83	22	28	7	111	15
TOTALS	371	100	378	100	749	100

TABLE 24 : Interest of Fifth and Sixth Form Respondents in Areas of Study proposed for Colleges of Advanced Education - First Choice.

Area of Study	Male %		Female %	
	Form		Form	
	5th	6th	5th	6th
Teacher Education	16	18	59	59
General Studies	13	15	10	16
Engineering and Applied Science	17	17	1	-
Administration and Commercial Studies	9	10	3	4
Rural Studies	12	10	1	1
Paramedical Studies	1	1	9	10
Architecture and Building	6	5	1	1
Social Work	-	-	3	2
Communications	3	1	1	-
Librarianship	-	-	1	2
Electronic Data Processing	1	1	-	-
Art and Music	-	-	3	-
Home Science and Nutrition	-	-	1	-
Sub-totals	78	78	93	95
Not interested, university only, no response, etc.	22	22	7	5
TOTALS	100	100	100	100

Selected Courses of Study in First Choice of Area

2.10 Within each area of study was a list of courses suggested for possible inclusion in colleges of advanced education. Having selected the area of study that most interested them, students then ranked courses within that area, which interested them very much. (See Questionnaire). If a desired course was not listed, provision was made at the end of each area of study for its addition by the student.

2.11 Provision was made to record the first three choices of course by each respondent. In some cases the three choices were found in one area of study and in others they were in different areas, while in certain cases it was not possible to record beyond the first choice.

2.12 It should be noted that individuals recording the data, at times, interpreted student responses where the response was not immediately apparent, for example, coded as 24 (primary teaching course) was one response in which the teacher education area was ranked "1", but there was a tick beside primary teaching, rather than the "1" suggested in the administrative procedure for completing the questionnaire.

2.13 Listed below (table 25) is a summary of the first choice of course within the area of study that most interests the students. Any course listed in the questionnaire but not reported here was not chosen by students.

TABLE 25 : Colleges of Advanced Education - Summary of Distribution of First Choice of Course within Proposed Areas of Study by Sex, Form and Number.

Course of Study	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Teaching : Primary	19	12	57	73	76	85
Teaching : Secondary	15	17	25	20	40	37
Teaching : Infants	-	-	23	48	23	48
Teaching : Junior Secondary	16	11	17	21	33	32
Humanities	15	10	23	17	38	27
Natural Sciences	18	22	7	9	25	31
Agriculture	17	25	1	2	18	27
Social Sciences	8	5	12	10	20	15
Teaching : Physical Education	5	10	6	12	11	22
Mechanical Engineer	15	19	-	-	15	19
Electrical Engineer	12	15	-	-	12	15
General Nursing	-	1	10	13	10	14
Teaching : Kindergarten	-	-	10	13	10	13
Economics	8	9	3	2	11	11
Accountancy	6	13	1	1	7	14
Teaching : Art	1	4	4	12	5	16
Administration : Government Departments	8	8	3	-	11	8
Architecture	4	10	1	1	5	11
Teaching : Needlework	-	-	7	8	7	8
Physiotherapy	-	-	6	8	6	8
Survey Draughting	10	3	1	-	11	3
Teaching : Home Science	-	-	9	3	9	3
General Engineer	5	7	-	-	5	7
Animal Husbandry	4	7	-	-	4	7
Librarian	1	1	4	5	5	6
Secretarial Studies	-	-	4	7	4	7
Social Worker	-	1	3	6	3	7
Radio, T.V. Production	3	5	-	1	3	6
Farm Management	2	6	1	-	3	6
Architectural Draughting	2	6	-	-	2	6
Law*	1	4	1	2	2	6
Wool Technology	4	3	-	-	4	3
Civil Engineer *	3	4	-	-	3	4
Veterinary Science *	3	3	-	1	3	4
Child Welfare Officer	-	1	4	2	4	3
Industrial Arts	1	4	-	1	1	5
Pharmacy *	1	3	-	2	1	5
Administration : Local Government	5	1	-	-	5	1

Table continued .....

* Courses written in by students - multiple choices.

TABLE 25 continued .....

Course of Study	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Forestry	5	1	-	-	5	1
Teaching: Music	-	-	2	4	2	4
Radiography	-	-	1	4	1	4
Teaching : Nursery	-	-	3	2	3	2
Medical Technology	2	-	-	3	2	3
Applied Geology	2	1	-	1	2	2
Personnel Work	2	1	-	1	2	2
Teaching : Manual Arts	1	3	-	-	1	3
Surveying (General) *	1	3	-	-	1	3
Journalism	-	1	1	2	1	3
Interior Decorating	-	-	-	4	-	4
Foreign Languages *	-	-	-	4	-	4
Occupational Therapy	-	-	3	1	3	1
Metallurgy *	3	1	-	-	3	1
Administration : Business/ Industry	2	1	-	1	2	2
Painting	1	-	-	2	1	2
Production Engineer	2	1	-	-	2	1
Rural/Agricultural Science *	3	-	-	-	3	-
Speech Therapy	-	-	1	2	1	2
Rehabilitation Officer	-	-	1	2	1	2
Laboratory Technology	1	2	-	-	1	2
Computer Programming	2	1	-	-	2	1
Music	-	1	1	1	1	2
Food Technology *	1	1	1	-	2	1
Horticulture	-	1	-	1	-	2
General Creative Arts	-	1	-	1	-	2
Radio Communications *	-	2	-	-	-	2
Electronics Technician *	-	2	-	-	-	2
Wool-classing *	1	1	-	-	1	1
Insurance *	1	1	-	-	1	1
Dental Nursing	1	-	-	1	1	1
Police Officer *	1	-	-	1	1	1
Cosmetic Arts	-	-	-	2	-	2
Irrigation Engineer	-	1	-	-	-	1
Midwifery Nursing	-	-	-	1	-	1
Dietetics and Nutrition	-	-	-	1	-	1
Psychiatric Nursing	-	-	1	-	1	-
Recreation/Youth Leaders	-	-	1	-	1	-
Town Planning	-	1	-	-	-	1
Hairdressing **	-	-	1	-	1	-
Pathology	-	-	1	-	1	-
Pilot Licence (Commercial)	-	1	-	-	-	1
Archaeology	-	1	-	-	-	1
R. A. A. F. Academy	-	1	-	-	-	1
Duntroon Military College	-	1	-	-	-	1

Table continued .....

* Courses written in by students - multiple choices.

** Courses written in by students - all courses below Hairdressing on the list were added by students.

TABLE 25 continued .....

Course of Study	Male		Female		Total	
	6th	5th	6th	5th	6th	5th
Agronomist	-	1	-	-	-	1
Livestock Officer/Adviser	-	1	-	-	-	1
Research Bio-physics	-	1	-	-	-	1
Dramatic Art	-	1	-	-	-	1
Automobile Design	-	1	-	-	-	1
Aviation Principles	-	1	-	-	-	1
Zoology	1	-	-	-	1	-
Food Processing	1	-	-	-	1	-
Paper Technology	1	-	-	-	1	-
Mining Engineer	1	-	-	-	1	-
Air Traffic DCA	1	-	-	-	1	-
Art (Major in fine Arts)	1	-	-	-	1	-
Oriental Studies	1	-	-	-	1	-
Management Executive	1	-	-	-	1	-
Aeronautical Engineer	1	-	-	-	1	-
Ballistics Engineer	1	-	-	-	1	-
Teaching : Sub-normal	-	-	-	1	-	1
Teaching : Deaf, Dumb and Blind	-	-	-	1	-	1
Teaching : In the islands	-	-	-	1	-	1
Child Nursing	-	-	-	1	-	1
Dress Designing	-	-	-	1	-	1
Commercial Art	-	-	-	1	-	1
Landscape Designing	-	-	-	1	-	1
Tracing - Architecture	-	-	-	1	-	1
No response/Not applicable	70	83	12	28	82	111
TOTALS	324	371	273	378	597	749

Travel

2.14 When discussing distances that students might be expected to travel daily to a college, a range of 40-100 miles was suggested by different persons during the Committee's country visits. In most cases, these expectations were higher than those expressed by students and parents when responding to the item: For most Australian students, attendance at a tertiary institution requires daily travel. Assuming that you wished - your son/daughter - to attend a college while living at home, what would you regard as the maximum distance (and time) reasonable to travel (one way) to the college each day?

2.15 Distance and time items were the only ones in which parents were required to write a response rather than making a selection from a list of choices. Several parents, and students, qualified their answers by suggesting alternative times and distances depending upon the mode of transport.

2.16 In the following four tables are reported the distances and times thought reasonable. Under present road conditions and transportation one might translate the "reasonable time" into distance and find a slightly higher percentage prepared to travel further.

2.17 During the processing of this data a tendency for respondents to set the maximum distance and time near the upper limits of classifications (e.g. 40 miles and/or 45 minutes) was noted.

TABLE 26 : Maximum Distance Sixth Form Students consider Reasonable to travel to College Daily.

Distance	Male		Female		Total	
	No.	%	No.	%	No.	%
1 - 10 miles	142	44	106	39	248	42
11 - 20 miles	103	32	101	37	204	34
21 - 40 miles	52	16	34	12	86	14
Over 40 miles	5	1	6	2	11	2
No response/Not applicable	22	7	26	10	48	8
TOTALS	324	100	273	100	597	100

TABLE 27 : Maximum Distance Parents consider Reasonable for Students to travel to College Daily.

Distance	Son		Daughter		Total	
	No.	%	No.	%	No.	%
1 - 10 miles	108	37	90	37	198	37
11 - 20 miles	99	33	85	34	184	34
21 - 40 miles	62	21	49	20	111	20
Over 40 miles	4	1	1	-	5	1
No response/Not applicable	23	8	22	9	45	8
TOTALS	296	100	247	100	543	100

TABLE 28 : Maximum Time Sixth Form Students consider Reasonable to spend in travel to College Daily.

Time	Male		Female		Total	
	No.	%	No.	%	No.	%
0 - 15 minutes	37	11	25	9	62	10
16- 30 minutes	164	50	152	56	316	53
31 - 45 minutes	51	16	31	11	82	14
46 - 60 minutes	35	11	37	14	72	12
Over 60 minutes	15	5	4	1	19	3
No response/Not applicable	22	7	24	9	46	8
TOTALS	324	100	273	100	597	100

TABLE 29 : Maximum Time Parents consider Reasonable for Students to travel to College Daily.

Time	Son		Daughter		Total	
	No.	%	No.	%	No.	%
0 - 15 minutes	14	5	22	9	36	7
16 - 30 minutes	130	44	119	48	249	46
31 - 45 minutes	61	20	40	16	101	18
46 - 60 minutes	59	20	38	16	97	18
Over 60 minutes	9	3	8	3	17	3
No response/Not applicable	23	8	20	8	43	8
TOTALS	296	100	247	100	543	100

2.18 Student and parent preferences for location of residence while attending a country college were also obtained. On the basis that they lived within reasonable daily travel of a country college, students responded as outlined in table 30.

TABLE 30 : Sixth Form Preference for Residence while attending a Country College.

	Male		Female		Total	
	No.	%	No.	%	No.	%
Travel daily	212	65	163	60	375	63
Live at the College	87	27	94	34	181	30
No response	25	8	16	6	41	7
TOTALS	324	100	273	100	597	100

2.19 In the parent questionnaire a third choice, permitting selection of residence in the town/city in which the college is located was added.

TABLE 31 : Parental Preference for Residence of Prospective Students : College located within Daily Travel Distance.

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Travel daily	176	60	148	60	324	60
Reside at the College	84	28	70	28	154	28
Reside in town/city in which the College is located	29	10	19	8	48	9
No response/Not applicable	7	2	10	4	17	3
TOTALS	296	100	247	100	543	100

2.20 A clear preference for daily travel is understandable in light of the distance most respondents considered reasonable to travel daily. When the distance between home and the college becomes a reality (announcement of the location and plan of establishment) some students will no doubt revise, in an upward direction, their idea of reasonable daily travel, while others will look more towards residence at the college.

2.21 To place this data in perspective relative to present distances and time taken in getting to secondary school, tables 32 and 33 have been included. Table 34 shows the mode of travel to school and table 35 reports where students have been living while attending school and undertaking Higher School Certificate studies.

TABLE 32 : Distance travelled to school Daily by Sixth Form Students.

Distance	Male	Female
1 mile or less	146	120
1 - 2 miles	66	57
3 - 5 miles	19	19
6 - 10 miles	17	24
11 - 20 miles	22	19
21 - 30 miles	19	12
31 - 40 miles	4	3
Not applicable *	31	19
TOTALS	324	273

TABLE 33 : Time spent in Travelling to school Daily by Sixth Form Students.

Time	Male	Female
0 - 15 minutes	202	178
16 - 30 minutes	42	44
31 - 45 minutes	25	13
46 - 60 minutes	15	10
61 - 75 minutes	4	7
76 - 90 minutes	3	1
91 - 105 minutes	1	1
106 - 120 minutes	1	1
Not applicable	31	18
TOTALS	324	273

---

* Principally students boarding at school.

TABLE 34 : Mode of Travel to School Daily by Sixth Form Students.

Mode of Travel	Male	Female
Walk	104	88
Bus	80	88
Car	50	50
Bicycle	36	18
Other	9	1
Train	-	1
No response	10	10
Board at School	35	17
TOTALS	324	273

TABLE 35 : Residence of Students during School Term, 1966-1967.

Residence	Male				Female			
	Form 5		Form 6		Form 5		Form 6	
	1966	1967	1966	1967	1966	1967	1966	1967
Living at home	-	298	260	264	-	296	208	216
Boarding at school	-	56	38	38	-	40	42	39
Boarding at hostel	-	3	2	-	-	14	4	7
Boarding privately	-	13	16	19	-	28	11	10
No response	-	1	8	3	-	-	8	1
TOTALS	371		324		378		273	

Movement to the Metropolitan Area

2.23 That children might live at home while taking courses not available to them in the country is a reason frequently cited for shifting to the city. Parents were asked if they might take this step, if not for their present sixth former, then perhaps because of the plans of other children. Their responses are presented in table 36.

TABLE 36 : Possibility of Movement to Metropolitan Area for Advanced Education of Children.

	Son		Daughter		Total	
	No.	%	No.	%	No.	%
Very likely	26	9	15	6	41	8
Possibly	46	15	29	12	75	14
Unlikely	67	23	48	19	115	21
No	149	50	151	61	300	55
No response	8	3	4	2	12	2
TOTALS	296	100	247	100	543	100

2.24 Review of the grouped occupations of parents who indicated it was very likely that they would move to the metropolitan area, revealed the following information :

Classified Occupation of Fathers	No.	Classified Occupation of Mothers	No.
Managerial	11	Domestic duties	30
White collar/sales	9	White collar/sales	2
Semi or unskilled	6	Managerial	3
Deceased	5	Other institution trained	1
Skilled trade	5	Not listed	2
Primary Industry - Proprietor/Manager	4	Deceased	1
Professional (non-university trained)	1	Semi or unskilled	1

2.25 A different picture unfolded when occupations of the 75 indicating it was "possible" they would move to the metropolitan area were studied :

Classified Occupation of Fathers	No.	Classified Occupation of Mothers	No.
Professional (university based)	10	Domestic Duties	52
Professional (non-university trained)	11	White collar/sales	9
Managerial	9	Professional (non-university trained)	6
		Managerial	3

Classified Occupation of Fathers	No.	Classified Occupation of Mothers	No.
Skilled Trade	14	Semi-skilled	1
White collar/sales	10	Deceased	1
Primary Industry - Proprietor/Manager	11	Pensioner	1
Semi or unskilled	4	No answer	2
Deceased/Retired/ Pensioner	2		
Primary Industry (employed)	1		
No answer	3		

Other Movement Noted

2.26 Of sixth form students (male = 102, female = 94) who had attended secondary schools other than that at which they were students in May, 1967, 78 males and 74 males had entered the school from other schools in the regions.

2.27 Some of the "within" transfer has been due to Catholic schools offering courses to the School Certificate only - schools which had previously presented Leaving Certificate candidates. Desire to continue to Fifth Form has necessitated transfer to other schools.

Review of Higher School Certificate Programmes of Students

2.28 The following presentation is related to the number and level of subjects taken by senior secondary school students. Matriculation requirements of different institutions may be applied to this data to provide an estimate of the number of students who might qualify for, or be denied, entrance to these institutions.

TABLE 37 : Number of Higher School Certificate Examination Subjects taken by Sixth Form Respondents (May, 1967).

	Number of Subjects		
	4	5	6
Male	-	149	175
Female	1	158	114
TOTALS	1	307	289

2.29 Five subjects provides approximately 52 per cent of the group while the remaining 48 per cent are in the six subject group.

2.30 Data was also obtained on the levels at which the subjects were being studied. Several schools were conducting examinations during the data-gathering period and it is possible some students may attempt a lower level examination at the end of the year than that recorded here.

Subjects Taken at Level 1, Level 2 or Level 2F * (1)

Students Taking 6 Higher School Certificate Subjects				Students Taking 5 Higher School Certificate Subjects			
No. of * Subjects	Male	Female	% of 597	No. of * Subjects	Male	Female	% of 597
6	55	38	16	6	-	-	-
5	33	29	10	5	47	56	17
4	24	19	7	4	55	56	19
3	13	8	3	3	13	26	7
2	17	6	4	2	11	11	4
1	19	4	4	1	13	5	3
0	14	10	4	0	10	4	2

2.31 Two of the four subjects taken by one girl are at level 2 or level 1.

2.32 Data specific to students who reside in the Mitchell, Lachlan and Macquarie regions is presented below.

Plans of Students Taking a Specified Number of Higher School Certificate Subjects at Level 1, Level 2 or Level 2F - Sixth Form Students residing in the Mitchell, Lachlan and Macquarie Regions

Five-Six Subjects -

Males = 130 Females = 118

Plans for 1968	Males	Females
Undertake further education full-time	114	111
Work part-time, attend courses part-time	10	3
Other plans	3	-
Work full-time	2	3
Return to school (2)	1	1
TOTALS	130	118

---

(1) Any combination of Maths-Science at 2F and/or level 1 classified as three subjects.

(2) Omitted from further data.

2.33 Type of Institution Preferred

	Male	Female	Location(M-F combined)*		
			City	Country	Not Given
University	107	64	119	44	8
Teachers College	6	46	15	33	4
Technical College	3	2	1	4	-
Agricultural College	3	-	1	2	-
Other Institution	2	2	-	3	1
Institute of Technology	1	-	1	-	-
Unknown/Not stated	7	3	-	-	-
TOTALS	129	117	137	86	13

* Proportions very similar in most-desired types of institutions.

2.34 First Choice of Course at these Institutions

Course	M	F	Course	M	F
University			**Teachers College**		
Arts	22	34	Infants	-	9
Agricultural Science	5	1	Primary	3	20
Architecture	3	1	Junior Secondary	3	6
Economics	6	4			
Pharmacy	2	2	Needlework, Home Science	-	5
Science	21	10	Art	-	3
Political Science	2	1	Physical Education	-	1
Engineering (all types)	17	-	Unknown	-	2
Rural Science	7	-			
Veterinary Science	5	-		6	46
Surveying	4	-			
Medicine	3	-	**Technical College**		
Law	2	-			
Biology	1	-			
Oriental Studies	1	-	Typing/Shorthand - Secretarial	-	2
Computer Studies	1	-	Medical Technology	1	-
Forestry	1	-			
Dentistry	1	-	Agriculture, Sheep/Wool, etc.	2	-
Industrial Chemistry	1	-			
Metallurgy	1	-		3	2
Food Technology	-	1			
Optometry	-	1	**Agricultural College**		
Physiotherapy	-	1	General Agriculture	2	-
Speech Therapy	-	1	Food Technology	1	-
Pathology	-	1			
Nursing Course	-	1		3	-
Social Science	-	1			
Not stated	1	4			
	107	64			

Course	M	F	Course	M	F
Institute of Technology			Other Institution		
Engineering	1	-	Territories Education Officer	2	-
	1	-	Radiography	-	1
			Typing/Shorthand	-	1
				2	2

2.35 Fifth form information on the number and levels of subjects provides an interesting comparison, with marked differences in percentages taking five and six subjects. Within the groups taking five and six subjects differences are also readily apparent in the percentage of first and second level subjects being attempted. One levelling factor has already been noted in paragraph 2.30.

TABLE 38 : Number of Higher School Certificate Examination Subjects taken by Fifth Form Respondents (May, 1967).

	Number of Subjects			
	4	5	6	7
Male	1	104	266	-
Female	-	116	260	2
TOTALS	1	220	526	2

2.37

Subjects Taken at Level 1, Level 2 or Level 2F *

Students Taking 6 Higher School Certificate Subjects				Students Taking 5 Higher School Certificate Subjects			
No. of Subjects *	Male	Female	%of 749	No. of Subjects *	Male	Female	% of 749
6	101	84	25	6	-	-	-
5	53	82	18	5	36	52	12
4	50	49	13	4	30	40	9
3	20	21	5	3	15	10	3
2	15	9	3	2	12	8	3
1	11	12	3	1	4	4	1
0	16	3	3	0	7	2	1

2.38 Two girls at seven subjects : (i) 4 subjects at level 2 and 3 at level 2F, and (ii) 2 at level 1, 2 at level 2, 2 at level 2F.

2.39 One boy is taking four subjects - three are at levels 1, 2 or 2F.

TABLE 39 : Parent/Student response to Questionnaires by school, form and sex.

School	MALE			FEMALE		
	Sixth		Fifth	Sixth		Fifth
	Student	Parent	Student	Student	Parent	Student
Bathurst H. S.	35	33	28	15	15	27
Marsden C. E. G. S. Bathurst				5	4	12
All Saints' College, Bathurst		10				
Diocesan Catholic Girls' H. S., Bath.				32	13	43
St. Stanislaus' College, Bathurst	25	10	23			
The Scots School, Bathurst	9	3	14			
Condobolin H. S.	2	2		4	4	4
Coonabarabran H. S.	5	5	4	5	5	11
Coonamble I. H. S.	3	3	4	4	4	3
Cowra H. S.	14	14	18	20	20	26
Dubbo H. S.	26	26	23	26	25	38
Forbes H. S.	7	7	22	8	8	16
Marist Bros. College, Forbes		*				
Gilgandra H. S.	3	3	10	9	9	11
Henry Lawson H. S., Grenfell	7	7	5	5	5	8
Kandos I. H. S.	4	5		2	2	
Lithgow H. S.	24	22	32	24	24	18
Mudgee H. S.	14	13	18	7	7	21
Narromine D. R. S.			2	2		4
Nyngan I. H. S.			1	1	1	3
Oberon C. S.	1	1		4	4	4
Santa Maria College, Orange	9	7	9	10	10	19
Presbyterian Ladies' College, Orange				15	15	
Orange H. S.	50	50	59	35	35	35
Parkes H. S.	17	16	23	11	10	25
Peak Hill C. S.	2	2	2	3	3	1
Wellington H. S.	12	10	13	7	7	15
Young H. S.	28	27	21	12	12	26
Murrumburrah I. H. S.	3	3	6	2	1	3
West Wyalong H. S.	4	4	4	5	4	5
Wolaroi College, Orange.	20	13	30			
TOTALS	324	296	371	273	247	378

* 13 arrived after processing was completed

COMMITTEE OF ENQUIRY TO ADVISE THE MINISTER FOR EDUCATION AND SCIENCE CONCERNING THE NEED FOR ADVANCED EDUCATION IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS OF NEW SOUTH WALES

Committee -

H.F. Heath, B.A., B.Ec. (Chairman)
G.D. Gawthorpe, B.Sc., B.Ed.
V.F. Gordon, LL.B
J.C. Matthews, Ph.C., M.P.S.
L.N. Short, M.Sc., Dip.Ed., D.Phil.
I.F. Vacchini, B.A.
D.J.A. Verco, M.A., Dip.Ed.

Research Assistants -

D.A. Cross, M.Sc., Ed.D.
C.S. Terry, B.Com., M.Ec.

Postal Address -

ADVANCED EDUCATION ENQUIRY,
EDUCATIONAL RESEARCH UNIT,
UNIVERSITY OF NEW SOUTH WALES,
P.O. Box 1, KENSINGTON.

Telephone - 663-0351, Ext. 2509

Dear Student,

The Minister for Education and Science has approved in principle the establishment of a College of Advanced Education to serve the Mitchell, Lachlan and Macquarie regions of the State, and a Committee has been appointed to investigate the proposal and to advise the Minister.

Colleges of Advanced Education represent a new concept of tertiary education in Australia. The Committee on the Future of Tertiary Education in Australia (popularly known as the Martin Committee) recommended in 1964 that a new type of tertiary educational institution be established. It was considered that students who, though qualified, do not wish to undertake a full university course, or whose chosen course is not considered appropriate for a university, yet wish to continue their studies beyond secondary school might have their needs met by a course of study in a College of Advanced Education.

It is proposed that Colleges of Advanced Education offer courses similar in standard to those at Teachers' Colleges or those leading to diplomas of the Institute of Technology and the Hawkesbury Agricultural College.

In general, College admission will be based on the satisfactory completion of a full six years of secondary education. Courses of the College will be of not less than two years of full-time study, or the equivalent of part-time study.

In order to provide information about the possible demand for courses, Fifth Form students and students who plan to sit for the Higher School Certificate Examination in 1967, are asked to complete a questionnaire. The questionnaire will allow you to indicate your interest in various types of careers and courses which may lead to them. This information is most important for the planning of a College of Advanced Education. Please complete the questionnaire and return it to your School Principal as soon as possible.

Yours faithfully,

L N Short

L.N. SHORT.

Office use only

Ref. No.

Town 1-2	Student 3-5

Higher Education Enquiry,
Mitchell, Lachlan, Macquarie Regions.

QUESTIONNAIRE FOR SIXTH FORM

Office use only

1. Surname ____________________ Mr./Miss (delete whichever does not apply) 6

   Other Names ____________________

2. Year of Birth __________ 7-8

3. If not born in Australia, year of entering Australia __________ 9-10

4. Address (while attending school during 1967) ____________________
   ____________________ 11-12

5. Home address, 1967 (if different from above) ____________________ 13-14
   ____________________ 15

6. Home address during first year of secondary school (if different from Number 5 above)
   ____________________ 16-17
   ____________________ 18

7. While attending school during 1966 and 1967, have you been living at home or boarding? (Place a tick where appropriate)

	1966	1967
Living at home	☐	☐
Boarding at school	☐	☐
Boarding at a hostel	☐	☐
Boarding privately	☐	☐

19-20

8. School attending in 1967 ____________________ 21-22

9. Other secondary schools attended (if any) -

Name of School	Years of Attendance
____________________	__________
____________________	__________
____________________	__________

23

10. What are your parents' occupations? (Be as specific as possible)

Father ________________________________ 24-25

Mother ________________________________ 26-27

Subjects Studied in 1967

11. Give the names of subjects you are taking this year and the level (1, 2F, 2S, 2 or 3) at which each is being studied -

Subject	Level	Subject	Level	
				28
				29

Plans for 1968

12. Assuming satisfactory (to you) completion of the Higher School Certificate Course in 1967, do you intend to - (Tick appropriate box)

1. Return to school ☐
2. Undertake further education full-time ☐
3. Work part-time, attend courses part-time ☐
4. Work full-time ☐
5. Other (give details) ________________________ ☐

________________________________ 30

13. If you intend to undertake further studies, underline the type of institution you would like to attend, give its name and the name of your first choice of course at that institution. If you do not plan to do any formal courses in 1968, turn to Item 17 (page 3)

Type	Name	Course	
1. Agricultural College			31
2. Business College			
3. Evening College			
4. Teachers' College			
5. Technical College			32
6. University			
7. Institute of Technology	Sydney		
8. Institute of Business Studies	Sydney		
9. Other institution			33-34

14. In the event that admission to the course of your first choice is not possible, name a second choice

______________________________ 35-36 ______

15. If your first choice of course were available in a college in the Mitchell-Lachlan-Macquarie region, and in the city, which would you prefer to attend? (Tick one)

1. the country college ☐
2. the city college ☐
3. no particular preference ☐ 37 ______

16. Omit this question if not interested in part-time work-study. There are various ways of arranging part-time courses. If you are interested in part-time work-study, indicate the order of preference for ways listed below. (1 for first choice, 2 for second choice, etc.)

1. Work half day; attend college half day ☐
2. Work during day; attend college in the evening ☐
3. Work half the year; attend college the other half ☐ 38 ______
4. Work for 8 months; attend college for 4 months ☐
5. Other (specify) ____________________ ☐ 39 ______

Travel

17. How do you usually travel to school each day? (Tick one)

1. Board at the school ☐
2. Walk ☐
3. Bicycle ☐
4. Car ☐
5. Bus ☐
6. Train ☐
7. Other (details) ____________________ ☐ 40 ______

18. Approximately how far do you travel to school each morning (one way(? ______ miles. 41 ______

19. Approximately how long does it take to make the journey? ______ minutes. 42 ______

20. For most Australian students attendance at a tertiary institution requires daily travel. Assuming that you wished to attend a college while living at home, what would you regard as:

    1. the maximum distance reasonable to travel (one way) to the college each day? ______ miles — 43

    2. the maximum time reasonable to spend in travel (one way) to the college each day? ______ minutes — 44

21. If living within reasonable daily travel of a country college, would you prefer to -

    1. live at the college ☐

    2. travel daily ☐ — 45

Non-Study in 1968

(If planning to continue formal courses in 1968, turn to Item 25)

22. I do not propose to enrol in formal courses in 1968 because -

    1. lack of finance ☐

    2. not interested in further study ☐

    3. have other plans (specifically: ________________ ________________________) ☐ — 46

23. If planning to work, could you live at home and follow this line of work? Yes ___ No ___ — 47

24. If not, name the nearest place at which you might expect to follow this line of work -

    1. adjacent town (close enough for daily travel) ☐

    2. more distant country town (not accessible for daily travel) ☐

    3. Sydney metropolitan ☐

    4. Newcastle ☐

    5. Wollongong ☐

    6. Other (name) ________________ ☐ — 48

Occupation

25. What is your first choice of an occupation for yourself? ________________ — 49-50

    Second choice ________________ — 51-52

Colleges of Advanced Education. Areas of Study

Listed below (pp. 5, 6, 7) is a number of areas of study and courses which are already functioning in, or have been proposed for, colleges of advanced education in this State. Your interest in these courses is central to our understanding of the educational needs of senior secondary school students in the Mitchell, Lachlan and Macquarie regions.

26. Place a tick in the box beside the choice which best describes your present attitude towards tertiary education -

1. not interested in tertiary education ☐
2. interested ONLY in university education ☐
3. prefer university, but main aim is to gain a recognised tertiary qualification ☐
4. desire a qualification from a recognised tertiary institution ☐
5. general interest in tertiary education ☐

53

If you have ticked (1) or (2) above, turn to Item 27.

If you have ticked (3), (4), or (5) above, proceed with the steps outlined below.

STEP 1

Place a "1" in the space provided beside the area of study that most interests you, e.g. 1 General Studies: If other areas of study also interest you, place a "2" beside your second area of interest, a "3" beside your third, etc. (Complete this step before commencing Step 2.)

STEP 2

In this area of study that most interests you, rank (1 for first choice, 2 for second choice, etc.) the special courses that interest you very much. Rank only the courses that interest you very much. If a special course you desire is not listed, write it in beside "Other" and rank it "1". (Complete this step before commencing Step 3.)

STEP 3

From the lists below ("a" to "m") tick any other courses that interest you greatly.

Courses

a. ______ General Studies: Courses in the Humanities (e.g. English, History, Philosophy) _____; Social Sciences (e.g. Psychology, Sociology, Political Science) _____; Natural Sciences (e.g. Chemistry, Physics, Biology) _____; (a full programme of such courses might be taken, or they might be associated with other subjects to prepare for specific vocations).

Other ______________________.

b. _____ Engineering and Applied Science: Electrical Engineer _____, 54-55
Mechanical Engineer _____, Production Engineer _____,
General Engineer _____, Irrigation Engineer _____, 56-57
Industrial Arts _____, Wool Technology _____, Applied Geology _____,
Laboratory Technology _____, General Technology _____,
Other _____________________________. 58

c. _____ Administration and Commercial Studies: Preparation for
Administration Work: in Government Departments _____, in Local
Government _____, in Business and/or Industry; 59-60
Economics _____, Accountancy _____, Secretarial studies _____,
Personnel work _____, Other _____________________________.

d. _____ Teacher Education: Nursery _____, Kindergarten _____, 61-62
Infants _____, Primary _____, Junior Secondary _____,
Manual Arts _____, Home Science _____, Needlework _____,
Physical Education _____, Art _____, Music _____, Secondary _____, 63-64
Sub-normal _____, Other _____________________________.

e. _____ Rural Studies: Agriculture _____, Animal Husbandry _____, 65
Farm Management _____, Horticulture _____, Forestry _____,
Other _____________________________.

f. _____ Paramedical Studies: (a) Nursing: General _____, 66
Midwifery _____, Infant Welfare and Mothercraft _____,
Psychiatric _____, Geriatric _____, Dental _____;
(b) Rehabilitation _____, Physiotherapy _____,
Occupational Therapy _____, Speech Therapy _____,
Radiography _____, Medical Technology _____, 67
Other _____________________________.

g. _____ Communications: Journalism _____, Script-Writing _____,
Radio and Television Production _____,
Other _____________________________.

h. _____ Librarianship: _____ Other _____________________________.

i. _____ Architecture and Building: Architecture _____,
Architectural Draughting _____, Building Construction _____,
Survey Draughting _____, Town Planning _____, Other __________.

j. _____ Electronic Data Processing: Computation ____, 68 ______
Computer Programming ____, Information Processing ____,
Other ________________________.

k. _____ Home Science and Nutrition: Cosmetic Arts ____, 69 ______
Infant and Child Care ____, Dietetics and Nutrition ____,
Catering and Institutional Management ____,
Other ________________________.

l. _____ Social Work: Preparation of: Social Workers ____, 70 ______
Recreation and Youth Leaders ____, Prison Officers ____,
Rehabilitation Officers ____, Child Welfare Officers ____,
Other ________________________.

m. _____ Art and Music: General Creative Arts ____,
Painting ____, Sculpture ____, Interior Decorating ____,
Music ____, Other ________________________.

---

27. Student Questions and/or Comments About:

(a) Questionnaire

(b) College of Advanced Education.

You are invited to raise questions and/or comment about these two items.

Office use only

Ref. No.

Town 1-2	Student 3-5

Higher Education Enquiry,
Mitchell, Lachlan, Macquarie Regions.

QUESTIONNAIRE FOR FIFTH FORM

Office use only

1. Surname ______________________ Mr./Miss (delete whichever does not apply)
   Other Names ______________________ — 6

2. Home address ______________________
   ______________________ — 7-8

3. School attending in 1967 ______________________ — 9-10

4. While attending school in 1967, have you been living at home or boarding? (Tick one)

   Living at home ☐

   Boarding at school ☐

   Boarding at a hostel ☐

   Boarding privately ☐ — 11

5. What are your parents' occupations? (Be as specific as possible)

   Father ______________________ — 12-13

   Mother ______________________ — 14-15

Subjects Studied in 1967

6. Give the names of subjects you are taking this year and the level (1, 2F, 2S, 2 or 3) at which each is being studied - — 16

Subject	Level	Subject	Level
________	____	________	____
________	____	________	____
________	____	________	____

17

Plans for 1969

7. Assuming satisfactory (to you) completion of the Higher School Certificate Course in 1968, do you intend to -
(Tick appropriate box)

1. Return to school ☐
2. Undertake further education full-time ☐
3. Work part-time, attend courses part-time ☐
4. Work full-time ☐
5. Other (give details) ____________________ ☐ 18

8. If you intend to undertake further studies, underline the type of institution you would like to attend, give its name and the name of your first choice of course at that institution. If you do not plan to continue formal courses, turn to Item 12 (page 3)

Type	Name	Course	19
1. Agricultural College			
2. Business College			
3. Evening College			
4. Teachers' College			
5. Technical College			20
6. University			
7. Institute of Technology	Sydney		
8. Institute of Business Studies	Sydney		
9. Other institution			21-22

9. In the event that admission to the course of your first choice is not possible, name a second choice

____ 23-24

10. If your first choice of course were available in a college in the Mitchell-Lachlan-Macquarie region and in the city, which would you prefer to attend? (Tick one)

1. The country college ☐
2. The city college ☐
3. No particular preference ☐ 25

26

11. There are various ways of arranging part-time courses. If you are interested in part-time work-study, indicate the order of preference for ways listed below (1 for first choice, 2 for second choice, etc.). Omit this question if not interested in part-time work-study.

   1. Work half day; attend college half day ☐
   2. Work during day; attend college in the evening ☐
   3. Work half the year; attend college the other half ☐
   4. Work for 8 months; attend college for 4 months ☐
   5. Other (specify) ____________________ ☐ 27

   Now turn to Item 15.

Non-Study in 1969

12. I do not currently plan to enrol in formal courses in 1969 because -

   1. Lack of finance ☐
   2. Not interested in further study ☐
   3. Have other plans (Specifically: ____________ ☐
   ____________________) 28

13. If planning to work, could you live at home and follow this line of work? Yes _____ No _____ 29

14. If not, name the nearest place at which you might expect to follow this line of work -

   1. Adjacent town (close enough for daily travel) ☐
   2. More distant country town (not accessible for daily travel) ☐
   3. Sydney Metropolitan ☐
   4. Newcastle ☐
   5. Wollongong ☐
   6. Other (name) ____________________ ☐ 30

15. What is your first choice of an occupation for yourself - (Please specify, even if you have previously indicated your plans)

   ____

   Second choice ______________________________ 31-32

33-34

Colleges of Advanced Education: Areas of Study

Listed below (pp. 5, 6, 7) is a number of areas of study and courses which are already functioning in, or have been proposed for, colleges of advanced education in this State. Your interest in these courses is central to our understanding of the educational needs of senior secondary school students in the Mitchell, Lachlan and Macquarie regions.

16. Place a tick in the box beside the choice which best describes your present attitude towards tertiary education -

1. not interested in tertiary education ☐
2. interested ONLY in university education ☐
3. prefer university, but main aim is to gain a recognised tertiary qualification ☐
4. desire a qualification from a recognised tertiary institution ☐
5. general interest in tertiary education ☐ 53

If you have ticked (1) or (2) above, turn to Item 27.

If you have ticked (3), (4), or (5) above, proceed with the steps outlined below.

STEP 1

Place a "1" in the space provided beside the area of study that most interests you, e.g. 1 General Studies: If other areas of study also interest you, place a "2" beside your second area of interest, a "3" beside your third, etc. (Complete this step before commencing Step 2.)

STEP 2

In this area of study that most interests you, rank (1 for first choice, 2 for second choice, etc.) the special courses that interest you very much. Rank only the courses that interest you very much. If a special course you desire is not listed, write it in beside "Other" and rank it "1". (Complete this step before commencing Step 3.)

STEP 3

From the lists below ("a" to "m") tick any other courses that interest you greatly.

Courses

a. ______ General Studies: Courses in the Humanities (e.g. English, History, Philosophy) ____; Social Sciences (e.g. Psychology, Sociology, Political Science) ____; Natural Sciences (e.g. Chemistry, Physics, Biology) ____; (a full programme of such courses might be taken, or they might be associated with other subjects to prepare for specific vocations).

Other ________________________.

b. ______ Engineering and Applied Science: Electrical Engineer _____, 54-55
Mechanical Engineer _____, Production Engineer _____,
General Engineer _____, Irrigation Engineer _____, 56-57
Industrial Arts _____, Wool Technology _____, Applied Geology _____,
Laboratory Technology _____, General Technology _____,
Other ____________________________. 58

c. ______ Administration and Commercial Studies: Preparation for
Administration Work: in Government Departments _____, in Local
Government _____, in Business and/or Industry; 59-60
Economics _____, Accountancy _____, Secretarial studies _____,
Personnel work _____, Other ____________________________.

d. ______ Teacher Education: Nursery _____, Kindergarten _____, 61-62
Infants _____, Primary _____, Junior Secondary _____,
Manual Arts _____, Home Science _____, Needlework _____,
Physical Education _____, Art _____, Music _____, Secondary _____, 63-64
Sub-normal _____, Other ____________________________.

e. ______ Rural Studies: Agriculture _____, Animal Husbandry _____, 65
Farm Management _____, Horticulture _____, Forestry _____,
Other ____________________________.

f. ______ Paramedical Studies: (a) Nursing: General _____, 66
Midwifery _____, Infant Welfare and Mothercraft _____,
Psychiatric _____, Geriatric _____, Dental _____;
(b) Rehabilitation _____, Physiotherapy _____,
Occupational Therapy _____, Speech Therapy _____,
Radiography _____, Medical Technology _____, 67
Other ____________________________.

g. ______ Communications: Journalism _____, Script-Writing _____,
Radio and Television Production _____,
Other ____________________________.

h. ______ Librarianship: _____ Other ____________________________.

i. ______ Architecture and Building: Architecture _____,
Architectural Draughting _____, Building Construction _____,
Survey Draughting _____, Town Planning _____, Other ____________.

j. _____ Electronic Data Processing: Computation _____, 68
Computer Programming _____, Information Processing _____,
Other ____________________________.

k. _____ Home Science and Nutrition: Cosmetic Arts _____, 69
Infant and Child Care _____, Dietetics and Nutrition _____,
Catering and Institutional Management _____,
Other ____________________________.

l. _____ Social Work: Preparation of: Social Workers _____, 70
Recreation and Youth Leaders _____, Prison Officers _____,
Rehabilitation Officers _____, Child Welfare Officers _____,
Other ____________________________.

m. _____ Art and Music: General Creative Arts _____,
Painting _____, Sculpture _____, Interior Decorating _____,
Music _____, Other ____________________________.

17. Student Questions and/or Comments About :

(a) Questionnaire

(b) College of Advanced Education.

You are invited to raise questions and/or comment about these two items.

COMMITTEE OF ENQUIRY TO ADVISE THE MINISTER FOR EDUCATION AND SCIENCE CONCERNING THE NEED FOR ADVANCED EDUCATION IN THE MITCHELL, LACHLAN AND MACQUARIE REGIONS OF NEW SOUTH WALES

Committee -

H.F. Heath, B.A., B.Ec. (Chairman)
G.D. Gawthrope, B.Sc., B.Ed.
V.F. Gordon, LL.B.
J.C. Matthews, Ph.C., M.P.S.
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Postal Address -

ADVANCED EDUCATION ENQUIRY,
EDUCATIONAL RESEARCH UNIT,
UNIVERSITY OF NEW SOUTH WALES,
P.O. Box 1, KENSINGTON.

Telephone - 663-0351, Ext. 2509

5th May, 1967.

Dear Parent/Guardian,

The Minister for Education and Science has approved in principle the establishment of a College of Advanced Education to serve the Mitchell, Lachlan and Macquarie regions of the State, and a Committee has been appointed to investigate the proposal and to advise the Minister.

Colleges of Advanced Education represent a new concept of tertiary education in Australia. The Committee on the Future of Tertiary Education in Australia (popularly known as the Martin Committee) recommended in 1964 that a new type of tertiary educational institution be established. It was considered that students who, though qualified, do not wish to undertake a full university course, or whose chosen course is not considered appropriate for a university, yet wish to continue their studies beyond secondary school might have their needs met by a course of study in a College of Advanced Education.

It is proposed that Colleges of Advanced Education offer courses similar in standard to those at Teachers' Colleges or those leading to diplomas of the Institute of Technology and the Hawkesbury Agricultural College. Areas of study currently offered, or suggested for Colleges of Advanced Education in this State include: General Studies (for example, courses in Humanities, Social Sciences, Natural Sciences), Engineering and Applied Science, Administration, Management and Commercial Studies, Teacher Education, Rural Studies, Paramedical Studies, Communications, Librarianship, Architecture and Building, Electronic Data Processing, Home Science and Nutrition, Social Work, Art and Music.

In general, College admission will be based on the satisfactory completion of a full six years of secondary education. Courses of the College will be of not less than two years of full-time study, or the equivalent of part-time study.

Since its appointment, the Committee investigating the need for advanced education in the Mitchell, Lachlan and Macquarie regions has visited cities and towns to view industrial and commercial enterprises, to accept submissions relating to location of the College, and to discuss problems of educational needs and possible courses which might meet these needs. A research programme has also been providing information relevant to this investigation.

The enclosed questionnaire is an important part of this research programme, and we seek your co-operation and assistance by completing the questionnaire and returning it to your School Principal or in the enclosed envelope as soon as possible.

Please note that the information provided by you shall be treated as confidential, and its use shall be restricted to the investigation related to the establishment of a College to serve the Mitchell, Lachlan and Macquarie regions.

Yours faithfully,

L.N. Short

L.N. SHORT.

Office use only

Ref. No.

Town 1-2	Student 3-5

Higher Education Enquiry,
Mitchell, Lachlan, Macquarie Regions.

QUESTIONNAIRE FOR PARENT/GUARDIAN OF SIXTH FORM STUDENT

Office use only

1. Surname ______________________ Mr./Mrs. (Delete one, unless completed by both) 6 ______

2. Surname of son/daughter ______________________

   Other names of son/daughter ______________________ 7 ______

3. School attended by son/daughter ______________________ 8-9 ______

4. Occupation (Be as specific as possible) ______________________ 10-11 ______

   Wife's occupation ______________________ 12-13 ______

5. Is your son/daughter boarding or living at home? (Tick one)

   Living at home ☐

   Boarding at school ☐

   Boarding at a hostel ☐

   Boarding privately ☐ 14 ______

6. Assuming your son/daughter satisfactorily completes the Higher School Certificate Course in 1967, do you prefer he/she - (Tick one)

   a. return to school ☐

   b. undertake further study full-time ☐

   c. work part-time, attend courses part-time ☐

   d. work full-time ☐

   e. other (give details) ______________ ☐

   ______________________ 15 ______

7. If you prefer he/she undertake further studies (either full or part-time) indicate your preference for the type of studies: (Tick one)

   a. University only ☐

   b. Prefer university, but the main aim is a tertiary qualification ☐

   c. No specific institutional preference, but the main aim is a tertiary qualification ☐

   d. General tertiary studies in a recognised institution: not primarily directed toward a specific vocation ☐

   e. Non-tertiary studies, e.g. non-diploma Technical or Business College courses ☐

   f. Other (specify) ______________________ ☐ 16

8. My son/daughter plans to attend university, but if a regional college offered basic courses which permitted entrance with advanced standing to a university, I would prefer -

   First year attendance at the University ☐

   First year attendance at the regional college ☐ 17

9. If the same course were available in a college in the Mitchell-Lachlan-Macquarie regions and in the city, which would you prefer your son/daughter to attend?

   a. The country college ☐

   b. The city college ☐

   c. No particular preference ☐

   d. Not interested in advanced education ☐ 18

10. Do you think you will move to the metropolitan area so your children (not necessarily in Sixth Form) may live at home while taking courses not available to them in the country? (Tick one)

   Very likely ☐

   Possibly ☐

   Unlikely ☐

   No ☐ 19

11. For most Australian students attendance at a tertiary institution requires daily travel. Assuming you wished your son/daughter to attend a college while living at home, what would you regard as -

    a. the maximum distance reasonable to travel (one way) to the college each day? ____ miles. 20

    b. the maximum time reasonable to spend in travel (one way) to the college each day? ____ minutes. 21

12. My son/daughter does not plan to undertake tertiary studies, but I would encourage him/her to do so if a college were established within daily travel distance of our home - (Tick one)

    Encourage ____ Not encourage ____ 22

13. If we live within reasonable daily travel of a regional college, and my son/daughter planned to attend the college, I would prefer that he/she -

    a. Reside at the college ☐

    b. Reside in the town/city where the college is located ☐

    c. Travel daily ☐ 23

14. Which of the following best describes your position? (Tick one) My son's/daughter's educational plans for 1968 depend upon receiving outside financial assistance to the following extent -

    a. No outside assistance needed ☐

    b. Fees and living allowance needed ☐

    c. Fees only needed ☐

    d. No plans for further study ☐ 24

Thank you for completing the questionnaire.

You are invited to comment on, and/or raise questions about, the questionnaire and Colleges of Advanced Education. Your comments may well assist us in advising the Minister.

APPENDIX II

PARENT AND STUDENT QUESTIONS AND COMMENTS PERTAINING TO RESPECTIVE QUESTIONNAIRES AND COLLEGES OF ADVANCED EDUCATION

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APPENDIX II

PARENT AND STUDENT COMMENTS AND QUESTIONS PERTAINING TO RESPECTIVE QUESTIONNAIRES AND COLLEGES OF ADVANCED EDUCATION

General Introduction

1.1 At the end of each questionnaire, parents and senior secondary school students were invited to comment on, or raise questions about, the questionnaire and about colleges of advanced education. In this appendix is presented a summary, principally verbatim, of what was written by the respondents. Parental comments are separate from student comments, but those of Fifth and Sixth Forms are combined. In some instances, paragraphs are the response (or part thereof) of one person; in others they are compilations of extracts from different persons. Several responses have been included "in toto".

1.2 This summary demonstrates, on the part of the respondents, an awareness of many of the problems that will confront the college council and it is anticipated that points raised may provide the council with insight into the nature and type of ongoing communication with the community that may be desirable during the establishment of the college.

1.3 Statements of a parochial nature, though quite frequently expressed by respondents, have not been included in view of the fact that the Committee, through its visits to centres seeking local establishment of the college, has been made keenly aware of the assets and possible development of each area.

1.4 Many respondents expressed appreciation at being provided with an opportunity to state their opinions.

1.5 The reader should be aware that there is a degree of overlap between, and among, different subsections of the summary.

SECTION A

PARENT QUESTIONNAIRE

Attitude towards a Country College

2.1 We have always been country people and have no wish to migrate to the city but with our two secondary school children both hoping to continue their education, unless facilities become available we will have to give serious consideration to moving citywards, as we feel that city students at the present time have a great advantage over their country cousins.

2.2 The State cannot be decentralized by further educational establishments in the cities. Every year I see young people drained out of our community to acquire tertiary education. Too often they decide to stay in the city. Less bright ones stay at home and so the gap between the city and country widens.

2.3 A college of advanced education is needed here because geographically we are isolated from country universities and Sydney, beyond added education provides accommodation and supervisory problems and too many side attractions.

2.4 Country families have had a raw deal in the past, both economically and with domestic upset caused by changes in the student's environment.

2.5 We prefer that our daughter continue her studies while living at home, preferably in the country, having already had experience of a son having to go to Sydney to continue his studies.

2.6 While the job opportunities are better the temptations of city life and the general distractions seem to result in the failure of many students who go to the city for education.

2.7 I know many students who have passed through the teachers college and . . . have liked the country living (presumably these were city students).

2.8 There is an urgent need for an agricultural college in the Lachlan Valley area.

2.9 The type of education my son wants is on-the-job training associated with part-time studies. If this type of work/education is not available in the country he will need to go to the city. Actually, there being much more diversity in the city he would probably go there in any case.

2.10 If country colleges were established, I'm not sure at present if I would encourage my children to attend them, as having been educated in a country town I think I would prefer them to attend a city college to broaden their outlook in general.

Location, Accommodation and Travel

2.11 The closer to ___________ the better. Our children are away from home for too long a period in their school years.

2.12 Education is a considerable expense as all our children have to board during the week.

2.13 I do not wish to be parochial in this matter and I do not care where they have the college in the regions mentioned, provided that the teachers and the facilities are of a comparable standard to the city's universities.

2.14 We are anxious that it be located in _______________; we have all too many obstacles with education without the added expense of travel. For financial reasons students need a college near their home.

2.15 I believe regional colleges would make it easier for people like myself who have to educate their children alone and I would prefer my son to go to a regional college because I could stay in my present occupation and be of help to him. But, if he has to go to the city, I feel I should try and be with him to provide a home and guidance . . . he is not used to city living and has always attended a college and so has had supervised study.

2.16 In my opinion, for children from outlying areas, lack of good, reasonably priced and well-supervised accommodation in towns is a deterrent for higher education.

2.17 Residential facilities at the college are desirable since we desire our children to have maximum opportunities for uninterrupted studies.

2.18 It has been my experience for the last 5 years to travel 160 miles per week, at least, in order to transport my children to an approved bus stop for children attending school. After this experience I came down strongly in support of any proposal to build regional centres billeting children in town during the 5-day school week.

2.19 Travel hinges solely on method of transport which becomes available and would not prove to be a major issue as this problem confronts both city and country students. Availability at suitable times is the important factor.

2.20 Boys and girls that have to travel long distances to attend study are considerably handicapped and the strain of driving or travelling in buses is taking time that others are using for studies.

2.21 I am of the opinion that students should, for their own advantage, reside at the college. For obvious reasons, however, daily travel . . .

2.22 Where adequate transport is not available, subsidized accommodation should be available. If transport is adequate it should be subsidized as it is for city students.

2.23 Where it is necessary for children of large families (e.g. 4 children) to board away from home to receive their secondary education, the older children are at a definite disadvantage when they apply for a living allowance with their Commonwealth Scholarship (school fees alone just about cover the permissible income for parents). This imposes almost impossible hardships on the student and the parent. This is particularly so where the child wishes to undertake a course of study where traineeships are not available - e.g. in one child's case, Architecture.

Miscellaneous

2.24 Tax allowances are totally inadequate where a student is boarding away from home and this resolves itself as a heavy capital expenditure by parents.

2.25 There should be liaison with local business, etc. My son would like to get a position with an establishment and also further his studies, hoping that the employer will reimburse him if satisfactory passes are obtained in these studies.

2.26 If attendance at a regional college is followed by enrolment at a university what provision will be made for the year's work at the former institution? If he did transfer, would the student have trouble in adapting to three institutions with their different philosophies, administration, accommodation and general policies in a space of several years?

2.27 If colleges of advanced education are established, entrance qualifications should be the same for all colleges and not varied as they are at New South Wales universities.

SECTION B

STUDENT QUESTIONNAIRE

Introduction

3.1 Both Fifth and Sixth Form students were invited to raise questions and/or comment on the questionnaire and a college of advanced education.

3.2 Some students said they had found the questionnaire difficult. The major difficulty was experienced by Fifth Form students who had not decided what type of tertiary course (if any) they would like to undertake and, related to that point, what occupation they would like to pursue.

3.3 Several suggested it would have been more appropriate to present the questionnaire to Second and Third Forms saying "it should be directed toward those who can possibly attend in the future" rather than to Fifth and Sixth Formers since "it would not be possible to have such a college in working order by the time we complete secondary school".

3.4 Satisfaction was expressed by several students, indicating the questionnaire was a"good idea because it allows the Committee to get the views of people who wish to attend it"; because it "enables students to express their opinions and also makes them think about what they want to be" and finally "because as so far only the politicians have had much to do with it".

3.5 One student felt the questionnaire was a "bit too personal". A second proposed that "any dissatisfaction on the location of the college will be blamed on the students who completed the questionnaire" while several others suggested its completion was "no use because we won't benefit and politicans won't take any notice".

3.6 Several would have preferred elaboration on the subject matter of courses listed under colleges of advanced education.

3.7 The following statements by respondents may have been expressed in different ways by one student or by many students. Some paragraphs incorporate statements made by more than one student, others are the thoughts of individual students.

General Attitude Toward a College

3.8 If we had one in this area more students would be interested in continuing their education and be willing to attend the courses. It wouldn't cost so much, would be of more help to parents who would also feel happier to send their children to the country in preference to the city, and you would be able to come home of a weekend.

3.9 Beneficial to students in country schools and who would like further education but find the cities too far away, travel too costly and the university courses too comprehensive for their particular needs and wants.

3.10 I feel that it would be of great value ... as there are many people, like myself, who want more than a business or technical college certificate, yet are not particularly interested in full-time university studies.

3.11 The Advanced College would be an ideal alternative to university education for reasonably intelligent young people.

3.12 If a college was established in the ____________ Region, one could specialize further in a subject without leaving the area, but when trained the person would still have to leave the area to find employment. Would this be defeating the purpose of the whole idea?

3.13 The students that can afford to, or get scholarships, leave the area for higher education and don't come back. Perhaps those that stay don't have much money but also more of them might not be quite as intelligent, so we lose the "brains".

3.14 A college would be a good idea as long as you don't have to be good at Mathematics or a Language like you have to to get into a university.

3.15 It may make tertiary studies possible for me. It was not possible before because of distance and finance.

3.16 Many more students will not be wasted as they are in banks at the moment.

3.17 I hope that a college of advanced education will be the institution at which a student begins to specialize, thus enabling the High School to provide a general comprehensive education.

3.18 A college is not essential because of the relatively small populations in these regions - the college would not serve a very large sector of the population.

3.19 The college may not attract students until the standards have been demonstrated.

3.20 My financial position is such that I will have to work part-time. This is not acceptable to me as I believe that for full advantage and advancement of tertiary education full-time studies must be undertaken. Scholarships are available but I am informed that these would not sufficiently support a student in full-time studies.

3.21 "I think a college of advanced education in this area would be a darn good idea. So far, decentralisation has been a convenient, vague, mythical word bandied about by political parties. The only way for decentralisation to have a practical meaning is for industry to be attracted to the country and, simultaneously, for advanced education to be available in the country. Otherwise, the perpetual drain of the really intelligent people from the country into the cities will continue. People won't "decentralise" firstly because of lack of educational opportunities, and secondly because Sydney offers far superior educational opportunities, all of which you know perfectly well.

"Anyhow, what's the use of this questionnaire. Politicians rarely pay any real attention to what the people think and want.

"(My friends all agree.)"

Student Concern on Standards, Recognition and Status

3.22 The questionnaire was useful in demonstrating possible courses but I think the majority of students are unaware as to the status of a Diploma or what can be done with it once it is gained - is the recognition of it sufficient for the two years' extra study?

3.23 What recognition would the student be given when he has completed his course in relation to others in similar vocations but with no tertiary qualifications?

3.24 How will the person with the diploma rate with other qualifications when persons are being considered for promotion or advancement? Would the graduate of the college have an equal chance of acquiring a certain position with a University graduate applying for the same position? Will they be considered as having equivalent qualifications?

3.25 This college will be at a disadvantage and may not interest many students until its standard has been proved. Without this proof, a degree from it may not be recognized by many people.

3.26 Will there be a time lapse before employers recognize the Diploma since it appears to be a new concept in many ways?

3.27 One does not see the word "university" in the circular and this immediately awakens doubts as to the standards of diplomas and degrees and also their acceptability in other places and overseas. Will they compare favourably with already existing tertiary diplomas?

3.28 Will the college be autonomous or linked to an established college or university? What would be the university/college relationships with respect to courses? What advantages would a diplomate have if he wanted to attend university at a later date? Could he do post-graduate work?

3.29 The college does not appeal to me because the number and variety of courses will be limited.

3.30 Would the college provide recognition of a qualification for a particular job, just as teachers college is a qualification for teaching?

3.31 Will entrance be competitive? If a student failed to pass the Higher School Certificate could he possible attend this college? How many subjects are required?

3.32 A statement by one student appropriately concludes this section : I realize these questions cannot all be answered now, but they are, from a student's point of view, important questions.

University or Regional College

3.33 What is the difference between the college and a university? If it is offering the same subjects as a university, why not attend the latter?

3.34 A scholarship to university would mean I would attend university where the education would be of a higher standard, thus one would expect to get a better job should he graduate.

3.35 I am interested in a university course but unless I gain a scholarship I could not attend. I would then wish to further my studies at the college you have described.

3.36 Although interested in a university course I find I might not be successful there - this college might solve the problem.

3.37 Colleges should have a common standard of entry and not be like the universities where they are all different.

3.38 Why not build a university of high standard west of the mountains? This would help to promote decentralization and would not necessitate the removal of potential community leaders to the already "overstocked" cities. If this is not possible it would be better to make more scholarships available for entry to city universities.

City or Country Enrolment

3.39 It would be better to situate the college of advanced education in a big city where the jobs would be available than in the proposed region where there is no demand for the jobs taught in the college.

3.40 A college in the country would relieve pressure on overcrowded suburban universities and colleges.

3.41 What better place to study than in a country town where you don't have the temptations and distractions of the city to contend with!

3.42 Attendance at city colleges by country students involves financial difficulties especially with respect to board and general expenses in the city are higher.

3.43 Unless the college were located in my home town, it would : be just as easy to enrol in a Sydney college as there would be the same problems of transport and boarding; be just as easy and perhaps more beneficial to go to Sydney where there would be many more other students and people to mix with; not be suitable and I would not attend, preferring the experience of a well-established college over a new one.

3.44 If the courses are as good as those available in Sydney and the course that I desire is available (there are no scholarships to it), I would prefer local attendance. How will the facilities, e.g. library, compare with a city college?

3.45 City students have a wide choice of institutions while our's is very limited indeed.

3.46 In the city there would be less travel and you can get a job at what you are studying.

Location, Travel and Accommodation

3.47 Locate it where the diversity of industry is greatest - this would ensure greatest use is made of facilities.

3.48 If it is not located in one's home town wouldn't it be just as easy to go to one of the recognized universities.?

3.49 The college will need to be residential as the distances from which students would be drawn are too great for daily travelling, although it will alleviate the travel problem for some students.

3.50 This college may not appeal to me because of lack of accommodation. I would probably prefer Sydney where accommodation is easier to obtain.

3.51 My estimate of distance and time of travel was difficult to make in that many students living in country towns are within walking distance of school and have had little experience in travelling on public transport.

3.52 Will transport subsidy be available as for city students?

3.53 I would be prepared to go to any country town or city to attend college and further my education except my home town. I think the same applies for nearly all my fellow pupils. Half the fun of leaving school is the fact that you are able to leave home and go some other place where you can learn to stand up for yourself on your own two feet and you are away from your parents' discipline.

Comments and Questions about Courses

3.54 (a) I feel that in pressing for this college you should consider putting the Agriculture, Science, Economics and English foremost. In this way you will find that you will get more country following.

(b) Courses should be provided to suit a rural class of students as these will make up the majority of students.

(c) Is there a course that takes in all aspects of farm life? There is not much use in specializing in one subject.

(d) Perhaps the college could provide correspondence courses for older people, e.g. housewives, adult education.

(e) Perhaps with the location of the college in this region the possibility of providing art teaching facilities could be considered... more pleasant than Sydney and artists are closer to nature.

(f) What would a course in Humanities qualify a person to do?

(g) What training is necessary for Occupational Therapy and Physiotherapy? Would I have to go to university?

(h) Would a course leading to teaching languages be available?

(i) Could I complete a 4-year music course there?

(j) Any subject that would be a combination of Textiles and Design and Interior Decorating.

(k) I would like to see accountancy available in country technical colleges.

(l) Could I study demolition on a part-time basis?

(m) I could not find a course in Farmacy (sic).

(n) Other courses : Life Assurance, Musical Tuition, Professional Catering, Demonstration of Home Appliances and Home Science.

(o) Agricultural courses should lead to greater productivity within the area.

Miscellaneous

3.55 What will be the fees and what types of scholarships will be available?

3.56 Most fifth form students do not know if they want to continue their studies.

3.57 I need to choose a career in accordance with scholarships or finance available.

3.58 The college should have enough attractions for students to be able to occupy themselves in out of course time. This includes facilities, e.g. library and others that are as good as university facilities.

3.59 Consider issuing a similar questionnaire to secondary students each year as a means of assisting employment. I don't think there is a close enough contact made between employers and youngsters leaving school and seeking employment.

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APPENDIX I

ACKNOWLEDGMENT

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The Committee.

In the Mitchell, Lachlan and Macquarie Regions :

Principals and Staffs of State Secondary Schools.
Principals and Staffs of Non-State Secondary Schools.
College of Advanced Education Committees.
Editors of Newspapers.

Administrative Officers and Staffs of :

N. S. W. Department of Education, Sydney.
Western N. S. W. Area Office of Education, Bathurst.
Research and Planning Division, N. S. W. Department of Education, Sydney.
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